

A QUORUM OF THE COMMISSION MAY BE PRESENT

Phone Conference ID: 878 099 013#

1:00 – 1:03	A. Roll Call/Pledge of Allegiance	
1:03 – 1:10	B. Disclosure of Potential Conflicts of Interest (Neutral Reviewer)(no attachment)	
1:10 – 1:15	C. SWC Secretary Update (no attachment)	
1:15 – 1:20	D. 2025 Water Development Plan (Pat) (no attachment)	
1:20 – 1:25	E. Draft New Commissioner Onboarding Guidance (Shana)	
1:25 – 1:45	F. Flood Control (Abby)	
	1. Neche Highway 18 Project - \$98,742	PC
	2. Maple River WRD: Cass Co Drain No. 34 Improvements - \$643,376	C
	3. Maple River WRD: Cass Co Drain No. 37 Improvements - \$292,909	C
	4. Traill Co WRD: Blanchard Norman Drain No 23-40 Improvements - \$157,284	C
1:45 – 1:50	G. General Water (Abby)	
	1. Barnes Co WRD: Little Dam Improvement Project - \$814,500	C
1:50 – 2:05	H. Water Supply (Municipal/Regional) (Julie)	
	1. Minot: Westfield Water Main Replacement - \$108,480	PC
	2. Minot: University Ave Water Main Replacement - \$108,480	PC
	3. Valley City: Improvement District 105 - \$517,400	C
2:05 – 2:20	I. Water Supply (Rural) (Julie)	
	1. Cass RWD: Reservoir D Supply Pipeline - \$270,000	PC
	2. Southeast WUD: West Water Treatment Plant Improvements - \$927,270	PC
	3. Agassiz WUD: 2022 Expansion Phase 2 - \$3,624,813	C

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STATE WATER COMMISSION

GUIDELINES

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1 EXECUTIVE SUMMARY

Congratulations on your appointment by the Governor of North Dakota to the North Dakota State Water Commission (SWC)!

The Office of the State Engineer was created in 1905 to regulate and administer matters concerning allocation of the state's water and related land resources in compliance with Article XI, §3 of the North Dakota Constitution, which declares all waters to be property of the state for public use. As a result of the 1930s drought, the State Water Conservation Commission was created by legislative action in 1937 for the specific purpose of fostering and promoting water resources development throughout the state. Additional duties were added to the Office of the State Engineer when the State Engineer was designated Chief Engineer and Secretary to the newly created State Water Conservation Commission.

The State Water Conservation Commission was eventually renamed the State Water Commission (SWC) in 1981 and was used to describe both the Governor-appointed Commission and the state team members responsible for supporting the SWC and its initiatives. During the 2021 Legislative Assembly, House Bill 1353 reorganized the Office of the State Engineer and State Water Commission into the Department of Water Resources (DWR). The reorganization became effective August 1, 2021, when an agency Director was appointed, and the agency became a member of the Governor's Cabinet. The Director is designated as the Secretary to the SWC and oversees the State Engineer and DWR.

While the agency team members were reorganized into the DWR in 2021, the appointed State Water Commission still remains. The SWC disburses cost-share funding for water projects and oversees state-owned water projects, including the Devils Lake Outlets, Northwest Area Water Supply, and Southwest Pipeline Project.

The commission will strive to use the expertise of individual members to enhance the ability of the commission as a body, rather than to substitute the individual judgments for the commission's values.

North Dakota Century Code (N.D.C.C.) dealing specifically with the SWC can be found in N.D.C.C. ch. [61-02](#).

2 BASIN REPRESENTATION

The SWC consists of the Governor, Agriculture Commissioner, and eight other members appointed by the Governor who shall consider reasonable geographic considerations in making the appointments with the intent of having each of the eight major drainage basins represented by a Commissioner who resides in the basin. The major drainage basins are the Upper Missouri River basin; the Lower Missouri River basin; the James River basin; the Upper Red River basin; the Lower Red River basin; the Mouse River basin; the Devils Lake basin; and the Little Missouri River, Upper Heart River, and Upper Cannonball River basin.



2.1 APPOINTMENT

The eight appointed members of the SWC must be appointed for a term of six years each with the terms of office so arranged that not more than four terms expire on the first day of July of each odd-numbered year. Each appointed member must be a qualified elector of the state and is subject to removal by judicial procedure. In case of a vacancy, the vacancy must be filled by appointment by the Governor for the remainder of the unexpired term. Before entering upon the discharge of official duties, each appointed member shall take, subscribe, and file with the Secretary of State the oath prescribed for civil officers. If the Governor or the Agriculture Commissioner are unable to attend, they may appoint a representative to serve in that official's capacity at meetings.

2.2 REQUIRED PAPERWORK

To enroll commissioners on the state payroll system, various forms will have to be completed and turned in to DWR Human Resources. Missy Schmidt, HR Business Partner, can be reached at 701.328.2751 or mkschmidt@nd.gov if you have any questions or need assistance in completing the forms.

The following forms will need to be filled out **(APPENDIX A)**:

- State HMRS Personal Data (SFN 13091)
- Form W-4, Employee's Withholding Certificate
- Direct Deposit Employee Authorization (SFN 50428). The state is requiring all new hires to use direct deposit.

Once the forms are completed, please return them to:

Missy Schmidt
ND Dept of Water Resources
1200 Memorial Highway, Dept. 770
Bismarck ND 58504-5262

Or email to: mkschmidt@nd.gov

3 STATE WATER COMMISSION RESPONSIBILITIES

3.1 COST-SHARE PROGRAM

Policy development and program application decisions that are related to the DWR Cost-Share Program are the responsibility of the SWC.

The SWC has adopted a policy to support local sponsors in development of sustainable water-related projects in North Dakota. The policy reflects cost-share priorities and provides the basic requirements for all projects considered for prioritization during the agency's budgeting process. Projects and studies that receive cost-share funding from DWR's appropriated funds are consistent with the public interest. The SWC values and relies on local sponsors and their participation to assure on-the-ground support for projects and prudent expenditure of funding for evaluations and project construction. The policy lists eligible and non-eligible items for cost-share. It is the policy of the SWC that only the items described in the policy are eligible for cost-share, unless specifically authorized by SWC action.

Periodically, the SWC will review the Cost-Share Project Funding Policy, Procedures, and General Requirements and update them as needed.

[Click here](#) to view the Cost-Share Project Funding Policy, Procedures, and General Requirements.

3.2 WATER DEVELOPMENT PLAN

As required by statute, on a biennial basis the SWC develops and maintains a comprehensive water development plan organized on a river basin perspective, including an inventory of future water projects for budgeting and planning purposes.

To view the most recent Water Development Plan, [click here](#). The state statute dealing specifically with the Water Development Plan can be found in N.D.C.C. § [61-02-01.3](#).

3.3 COMMISSIONER-HOSTED MEETINGS

Each Commissioner hosts a meeting in their respective basin on a biennial basis, as required by N.D.C.C. § 61-02-01.3, to promote and encourage local project sponsor participation in water planning and in legislative and agency biennial budgeting efforts. As required by statute, the meetings are to be held in the Lower and Upper Red River; James River; Mouse River; Lower and Upper Missouri River; Little Missouri, Upper Heart, and Cannonball; and Devils Lake basins.

For the eight basin meetings, water management and development stakeholders, and project sponsors are invited and encouraged to attend and provide input. The specific areas of focus for the commission-hosted meetings can include things such as the DWR Five Year Strategic Plan, DWR budget update, the Water Development Plan process, Cost-Share Policy and Prioritization Guidance modifications, and project summaries and updates from sponsors as well as public comments.

3.4 STATE-OWNED PROJECTS

DWR budgets and manages construction related to state-owned projects on behalf of the SWC. The SWC considers requests from DWR to fund project construction efforts related to each state-owned project. The SWC owns the following projects:

3.4.1 SOUTHWEST PIPELINE PROJECT (SWPP)

N.D.C.C. ch. 61-24.3 declares necessary that the Southwest Pipeline Project be established and constructed, to provide for the supplementation of the water resources of a portion of the area of North Dakota south and west of the Missouri River with water supplies from the Missouri River for multiple purposes, including domestic, rural, and municipal uses. The DWR has been working to develop the SWPP ever since – with construction beginning in 1986. The SWPP is operated and maintained by the Southwest Water Authority (SWA).

SWPP serves a population of more than 56,000 people in southwest North Dakota in 33 communities, with over 7,300 rural service connections, 24 raw water customers, and 24 contract customers. SWA also provides potable water to two rural water systems: Missouri West Water System in Morton County and Perkins County Rural Water System in South Dakota.

To learn more about the SWPP [click here](#).

3.4.2 NORTHWEST AREA WATER SUPPLY (NAWS)

N.D.C.C. ch. 61-24.6 declares necessary the pursuit of a project that would supply and distribute water to the people of northwestern North Dakota through a pipeline transmission and delivery system. In 1991, the state passed into law a bill creating the NAWS Advisory Committee, while giving SWC the authority to construct, operate, and manage the project.

DWR began construction on the NAWS project in April 2002. The first four contracts involving 45 miles of pipeline from the Missouri River to Minot were completed in the spring of 2009.

That same year, lawsuits were initiated regarding bringing water across the continental divide, but various elements of project construction had been allowed to proceed by court order including most of the distribution system and nearly the entirety of the supply pipeline.

In August 2017, the District of Columbia District Court ruled on the case in favor of the United States Bureau of Reclamation and the State of North Dakota. Manitoba and Missouri both appealed the District Court's ruling to the United States Appellate Court for the District of Columbia Circuit. Manitoba and the Bureau of Reclamation entered into settlement negotiations, after which Manitoba withdrew its appeal. In May 2019, the Circuit Court upheld the District Court's Ruling. Missouri had until August 2019 to appeal the case to the

Supreme Court but did not, thus ending nearly 17 years of litigation on the project.

NAWS is designed to service a project area of 81,000 people. The project is currently serving Berthold, Kenmare, Burlington, West River Water District, Upper Souris Water District, Mohall, Sherwood, All Seasons Water District, and Minot (also serves North Prairie Water District and Minot Air Force Base). NAWS is getting interim water supply through an agreement with Minot.

In 2023, the state passed into law House Bill 1218 that elevates the NAWS Advisory Committee to an Authority, that consists of representatives who are appointed by the SWC for four-year terms.

To learn more about NAWS [click here](#) and [here](#).

3.4.3 DEVILS LAKE OUTLETS

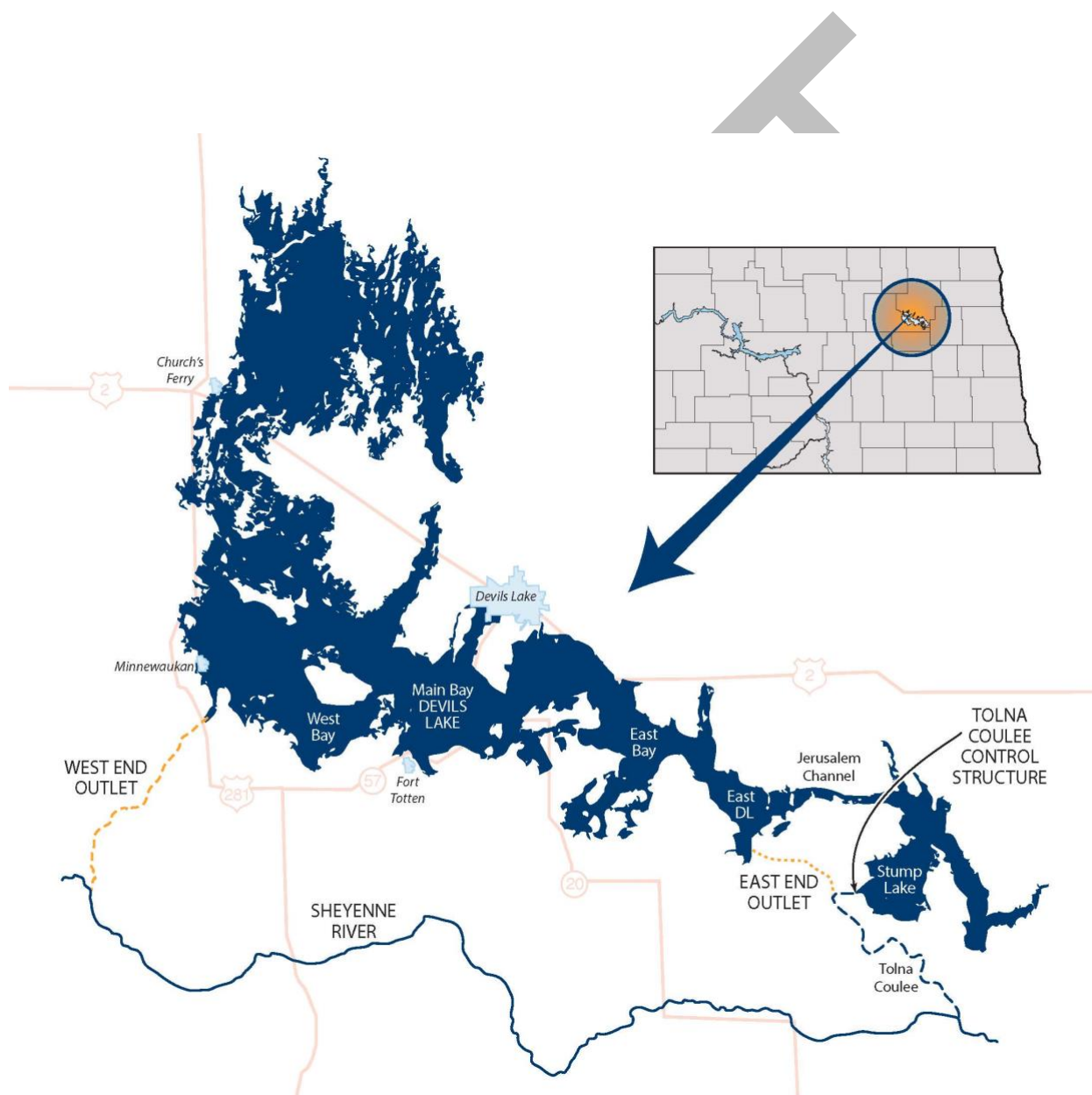
Since the lake began its rise in 1993, over \$1 billion has been spent on infrastructure in the Devils Lake region. As the lake crept higher, the levee that protects the city of Devils Lake was raised numerous times, roads were raised or moved, as were homes, businesses, and all of the other structures that make modern life possible. While vital infrastructure such as roads, the levee around the city of Devils Lake, or rail lines have, or are being raised above the overflow elevation of Devils Lake, the lake continues to flood homesteads and farmland in rural areas, creating significant impacts.

The State of North Dakota began construction on an outlet from the West Bay of Devils Lake to the Sheyenne River in 2002 and completed it in 2005. The outlet began operating during the summer of 2005, was not operated due to permit constraints in 2006, and was operated again in 2007 and 2008. In 2010, construction increased the capacity of the West Devils Lake outlet to a maximum of 250 cubic feet per second (cfs). In 2012, in response to rapid increases in lake levels, the state built an additional outlet on the east side of Devils Lake, with a maximum capacity of 350 cfs. The combined operating capacity of both east and west outlets is 600 cfs. To keep stakeholders informed about outlet operations, a Devils Lake Outlets Advisory Board is appointed by the Governor and meets at least once per year.

In addition to the outlets, the Tolna Coulee Control Structure serves as an added level of protection from a natural uncontrolled overflow. The purpose of the structure is to prevent a potentially catastrophic uncontrolled overflow of Stump Lake through the Tolna Coulee while allowing the Devils Lake water levels to fall to the level that they would have without the project. The control structure was constructed by the Army Corps of Engineers. It was completed in May 2012 and is owned and operated by the DWR.

There have been numerous efforts at upper basin water management in the Devils Lake basin, including storage and land management programs. Various efforts to store water and reduce runoff in the upper basin continue, mostly through a variety of conservation programs.

To learn about the Devils Lake outlets [click here](#). Members of the Outlets Advisory Board can be found [here](#).



4 OVERVIEW OF STATE WATER COMMISSION MEETINGS

4.1 COMMISSION MEETINGS

The Commission shall hold at least one meeting every two months at places as it, by resolution, may provide. The Governor or the Governor's appointed representative shall preside at all meetings of the Commission as the chairperson, and in case of the absence or disability of the Governor and Governor's appointed representative, the vice chairperson shall preside. The chairperson or vice chairperson may issue a call for any meeting at any time.

In the months of February, April, June, August, October, and December the SWC holds their regular meetings in person—typically at a location in Bismarck. Meetings are posted on the ND Secretary of State's website and on the DWR website. A list of the meeting dates can be viewed by clicking [here](#).

4.2 PRE-COMMISSION MEETINGS

The SWC meets virtually and/or in person for a Pre-Commission meeting in the months of January, March, May, July, September, and November. Pre-Commission meetings are held to do an initial review of projects and other items on the agenda, to identify any areas of concern or items that necessitate more information and further discussion, and to establish consent agenda items.

4.3 EXECUTIVE SESSIONS

Under the authority of N.D.C.C. § 44-04-19.1 and N.D.C.C. § 44-04-19.2, discussion pertaining to attorney work product, attorney consultation, and negotiation preparation may be held in executive session rather than in an open meeting. The executive session will be recorded, and all members of the governing body must limit their discussion to the announced topic. Any final action by the SWC must occur after it reconvenes in open meeting. The prohibition on taking final action during the executive session does not apply to providing guidance or instructions to the attorney.

4.4 CHAIRPERSON RESPONSIBILITIES

The Governor is the chairperson of the commission. The Governor shall designate a vice chairperson from the members of the Commission. The Director of the DWR is the secretary of the Commission.

4.4.1 DUTIES OF THE CHAIRPERSON (NOT LIMITED TO):

- Providing coordination, guidance, and leadership to ensure successful functioning of the Commission;
- Representing the SWC in the public domain; and
- Ensuring the administrative and other tasks from meetings are carried out.

4.4.2 DURING MEETINGS, THE CHAIRPERSON IS TO ENSURE:

- The agenda is followed;
- Meetings are correctly convened;
- Motions and amendments are unambiguous and otherwise in order;
- All members are given the opportunity to speak;
- Matters are dealt with in an orderly, timely, and efficient manner;
- A quorum is present for all decisions; and
- Maintaining order.

If the chairperson or the chairperson's appointed representative is absent from a meeting, the vice chairperson will convene the meeting. If the commission does not have a vice chairperson, the commission may temporarily appoint another of its members as the substitute chairperson.

The chairperson may vote on any motion considered at the meeting and in the event of a tied vote, the agenda item will be moved to the next agenda.

4.5 VICE CHAIRPERSON RESPONSIBILITIES

The vice chairperson's role shadows that of the chairperson. The vice chairperson should be able to stand in for the chairperson at short notice.

5 WORKING GROUPS

The SWC has the authority to form working groups to collaborate to achieve specific goals, tasks, or projects. The working groups may be established to clarify issues, formulate strategies, and develop action plans. All working groups are subject to open meetings laws, and all final action is determined by a vote of the SWC.

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6 DEPARTMENT OF WATER RESOURCES (DWR)

The DWR was created in 2021 by Legislative action. DWR was previously called the State Water Commission and the Office of the State Engineer.

DWR has the authority to investigate, plan, construct, and develop water-related projects, and serves as a mechanism to financially support those efforts throughout North Dakota. Currently, there are six divisions that make up the DWR: Administration, Atmospheric Resources, Planning and Education, Regulatory, Water Appropriation, and Water Development.

The Director provides overall leadership and decision-making, has hiring responsibilities, and oversees the State Engineer and Department of Water Resources division directors and team members.

North Dakota's State Engineer is responsible for several regulatory functions and responsibilities as part of the Department of Water Resources, including allocation of the state's waters, dam safety, and drainage.

DWR is primarily located in the Bank of ND Building, 1200 Memorial Highway, Bismarck, North Dakota. In addition, DWR has field offices in Fargo, Minot, and Devils Lake and a shop located at 2901 E Main Ave, Bismarck, North Dakota.

6.1 MISSION STATEMENT

To responsibly manage North Dakota's water needs and risks for the people's benefit.

6.2 VISION STATEMENT

The Department of Water Resources will sustainably manage and develop North Dakota's water resources for the health, safety, and prosperity of its people, businesses, agriculture, energy, industry, recreation, and natural resources.

6.3 VALUES STATEMENT

The Department of Water Resources values fairness, objectivity, accountability, responsiveness, engagement, and credibility. We pledge to use professional and scientific methods to maintain the highest of standards in our delivery of services.

6.4 STRATEGIC INITIATIVES

The DWR Strategic Plan furthers the implementation of Governor Doug Burgum's strategic initiatives: Main Street Initiative; Tribal Engagement; Reinventing Government; Behavioral Health and Addiction; and Transforming Education.

6.5 OBJECTIVES

The DWR Strategic Plan outlines key overarching objectives to be accomplished with establishment of goals and tactics for each objective. [Click here](#) for the Strategic Plan.

7 COMMISSIONER PAY/TRAVEL

7.1 COMMISSIONER PAY

Commissioner pay follows legislative management pay as specified in N.D.C.C. § 54-35-10 which is set at a rate of \$102.50 for a half (½) day or \$205.00 for a full day. These rates are effective July 1, 2023 through June 30, 2024. After June 30, 2024, it will increase to \$213.00 per full day. Commissioners are to fill out the Board Member Pay form (SFN 58674) and submit to the HR Business Partner by mail, email, or by fax on a monthly basis. [Click here](#) to view the current board member pay.

7.2 TRAVEL

7.2.1 MILEAGE REIMBURSEMENT

Commissioners are reimbursed for their mileage to and from meetings, field site visits, and any mileage accrued while acting in the official capacity as a commissioner.

Necessary official travel by commissioners will be reimbursed at a rate not to exceed the Privately Owned Vehicle (POV) Mileage Reimbursement Rate established by the U.S. General Services Administration (GSA) for an automobile. As of January 1, 2023, this rate is 65.5¢ per mile.

[Click here](#) for the current rate on mileage reimbursement.

7.2.2 MEALS

N.D.C.C. § 44-08-04 provides for reimbursement of Commissioner expenses for meals and lodging while a Commissioner is away from their normal working and living residence. If meals are included as part of a registration fee for a conference, seminar, or other meeting, the Commissioner should be reimbursed for the entire registration fee, if paid by the Commissioner. However, the Commissioner cannot claim reimbursement for the applicable meal allowance for that quarter.

A Commissioner should be reimbursed for meals paid by the Commissioner while attending a meeting at the request of, or on behalf of, the state or any of its subdivisions, agencies, bureaus, boards, or commissions, up to the allowable rates established below.

N.D.C.C. § 44-08-04 provides that reimbursement is allowed only for overnight travel and other travel while away from the normal place of employment for four hours or more. Commissioners will not be reimbursed for the first quarter if travel began after 7:00 a.m. In order to claim expenses for the second and third quarters, the Commissioner must have been in travel status one hour before the start of the quarter being claimed, and travel status must extend at least one hour into the quarter being claimed. The expense allowance for each quarter of any 24-hour period effective August 1, 2023, is as follows:

Meal Allowance

- | | |
|--|------------------------------|
| 1. First quarter, 6 a.m. to 12 noon | \$9.00 20% of GSA M&IE rate |
| 2. Second quarter, 12 noon to 6 p.m. | \$14.00 30% of GSA M&IE rate |
| 3. Third quarter, 6 p.m. to 12 midnight | \$22.00 50% of GSA M&IE rate |
| 4. Fourth quarter, 12 midnight to 6 a.m. | |

7.2.3 LODGING

In-State Lodging: Maximum of 90% of the GSA rate for lodging in North Dakota plus applicable state and local taxes. As of October 1, 2023, the GSA rate for lodging in ND is \$107, therefore, the maximum amount that can be claimed is \$96.30 plus applicable taxes ($\$107 \times 90\% = \96.30). The GSA will update their rates periodically during the biennium and the allowable lodging reimbursement will also change at that time.

Out-of-State Lodging: Actual lodging expense. Commissioners engaged in travel outside of North Dakota shall be reimbursed for meals equal to the per diem meals rate in the city of final destination.

[Click here](#) for the current GSA per diem rates.

All mileage, meals, and lodging can be recorded on a Travel Expense Voucher (SFN 52785). If a commissioner is claiming reimbursement for meals for travel when no overnight stay is involved, the meal reimbursement is taxable. When completing the Travel Expense Voucher, taxable meals must be noted accordingly. The commissioner will receive the full meal reimbursement and the taxes will be withheld through the payroll system during the next payroll cycle. Completed travel vouchers can be sent to Shana Brost slbrost@nd.gov or turned in at a commission meeting.

The Board Member Pay form and the Travel Expense Voucher are attached as **APPENDIX B.**

8 OPEN MEETINGS/RECORDS

North Dakota law states that all government records and meetings must be open to the public unless otherwise authorized by specific law. The applicable laws are found in the N.D.C.C., beginning at § 44-04-17-1. The public has the right to know how government functions are performed and how public funds are spent.

8.1 OPEN MEETINGS

Anyone has the right to attend SWC pre-commission and regular meetings, regardless of where they live. All meetings of the SWC are open, unless a specific law authorizes the commission to close a portion of the meeting or to hold an executive session.

A meeting is any gathering of a quorum of the members of a governing body of a public entity regarding public business. It includes committees, sub-committees, informal gatherings, fact-finding, work sessions, and discussions where a quorum of members are participating by phone or other electronic format either at the same time or in a series of individual contacts. Emails or text messages between members of a committee or subcommittee regarding public business may constitute a meeting and violate open meeting laws. If the SWC delegates any authority or assigns a task or portfolio to two or more people, it has created a committee which is subject to open records and meetings law, even if the committee does not have decision-making authority.

Training seminars and purely social gatherings attended by a quorum of a public entity are not meetings, however, as soon as the members discuss any public business, it becomes a meeting.

8.2 OPEN RECORDS

A record includes all recorded information regardless of physical form (e.g. paper, e-mail, computer file, photograph, audiotape or recording, video, text message, etc.) that has a connection with how public funds are spent or with the public entity's performance of its governmental functions or its public business, regardless of format or location. Minutes, memos, reports, outlines, notes, employee salary and job performance records, contracts, telephone records, and travel vouchers are all open records and must be provided upon request.

Anyone has the right to view or get a copy of public records, regardless of the reason or where they live. A request for public records can be made in any available medium. Generally, a public entity cannot ask why the records are requested, ask for identification, or require a request be made in writing (or in person). However, a request must reasonably identify existing records. If a request is unclear, the entity may require written clarification but cannot ask the requester's motive or identity. The entity can delay taking action until receiving written clarification.

More info can be found by [clicking here](#).

9 CODE OF CONDUCT

The SWC members are expected to conduct themselves so as to inspire the confidence, respect, and trust of the people of North Dakota and to strive to avoid not only professional impropriety but also the appearance of impropriety. SWC member conduct and actions reflect upon the integrity and professionalism of the SWC and DWR. Actions that bring into question the reputation of the SWC or DWR are expected to be avoided.

9.1 CONFLICT OF INTEREST

The North Dakota Ethics Commission was established in 2018 by initiated measure to create Article XIV of the North Dakota Constitution. The Ethics Commission has oversight over North Dakota's public officials including those that are elected or appointed officials of the state's executive or legislative branch. This includes members of the State Water Commission.

The Conflict of Interest Policy, along with the Conflict of Interest Disclosure Form is attached as **APPENDIX C**.

9.2 ACTIVE PARTICIPATION

Commissioners are expected to exercise the duties and responsibilities of their positions with integrity, collegiality, and care. This includes:

- Making attendance at all meetings of the SWC a high priority.
- Being prepared to discuss the issues and business on the agenda and having read all background material relevant to the topics at hand.
- Cooperating with and respecting the opinions of fellow Commissioners, and leaving personal prejudices out of all board discussions, as well as supporting actions of the Commission even when the Commissioner personally did not support the action taken.
- Putting the interests of the SWC above personal interests.
- Representing the SWC in a positive and supportive manner at all times and in all places.
- Showing respect and courteous conduct in all SWC meetings.
- Refraining from intruding on administrative issues that are the responsibility of the Director, except to monitor the results and ensure that procedures are consistent with Commission policies.

10 HISTORY

Adopted: Date

Effective:

Previous Revision(s): No Revisions Available

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APPENDIX A

Employee's Withholding Certificate

OMB No. 1545-0074

Complete Form W-4 so that your employer can withhold the correct federal income tax from your pay.

Give Form W-4 to your employer.

Your withholding is subject to review by the IRS.

2023

Step 1: Enter Personal Information	(a) First name and middle initial	Last name	(b) Social security number
	Address		Does your name match the name on your social security card? If not, to ensure you get credit for your earnings, contact SSA at 800-772-1213 or go to www.ssa.gov .
	City or town, state, and ZIP code		
	(c) <input type="checkbox"/> Single or Married filing separately <input type="checkbox"/> Married filing jointly or Qualifying surviving spouse <input type="checkbox"/> Head of household (Check only if you're unmarried and pay more than half the costs of keeping up a home for yourself and a qualifying individual.)		

Complete Steps 2–4 **ONLY** if they apply to you; otherwise, skip to Step 5. See page 2 for more information on each step, who can claim exemption from withholding, other details, and privacy.

Step 2:
Multiple Jobs or Spouse Works

Complete this step if you (1) hold more than one job at a time, or (2) are married filing jointly and your spouse also works. The correct amount of withholding depends on income earned from all of these jobs.

Do **only one** of the following.

- (a) Reserved for future use.
- (b) Use the Multiple Jobs Worksheet on page 3 and enter the result in Step 4(c) below; or
- (c) If there are only two jobs total, you may check this box. Do the same on Form W-4 for the other job. This option is generally more accurate than (b) if pay at the lower paying job is more than half of the pay at the higher paying job. Otherwise, (b) is more accurate ☐

TIP: If you have self-employment income, see page 2.

Complete Steps 3–4(b) on Form W-4 for only **ONE** of these jobs. Leave those steps blank for the other jobs. (Your withholding will be most accurate if you complete Steps 3–4(b) on the Form W-4 for the highest paying job.)

Step 3: Claim Dependent and Other Credits	If your total income will be \$200,000 or less (\$400,000 or less if married filing jointly):		
	Multiply the number of qualifying children under age 17 by \$2,000	\$	
	Multiply the number of other dependents by \$500	\$	
	Add the amounts above for qualifying children and other dependents. You may add to this the amount of any other credits. Enter the total here		3 \$
Step 4 (optional): Other Adjustments	(a) Other income (not from jobs). If you want tax withheld for other income you expect this year that won't have withholding, enter the amount of other income here. This may include interest, dividends, and retirement income		4(a) \$
	(b) Deductions. If you expect to claim deductions other than the standard deduction and want to reduce your withholding, use the Deductions Worksheet on page 3 and enter the result here		4(b) \$
	(c) Extra withholding. Enter any additional tax you want withheld each pay period		4(c) \$

Step 5: Sign Here	Under penalties of perjury, I declare that this certificate, to the best of my knowledge and belief, is true, correct, and complete.		
	Employee's signature (This form is not valid unless you sign it.)		Date
Employers Only	Employer's name and address	First date of employment	Employer identification number (EIN)

General Instructions

Section references are to the Internal Revenue Code.

Future Developments

For the latest information about developments related to Form W-4, such as legislation enacted after it was published, go to www.irs.gov/FormW4.

Purpose of Form

Complete Form W-4 so that your employer can withhold the correct federal income tax from your pay. If too little is withheld, you will generally owe tax when you file your tax return and may owe a penalty. If too much is withheld, you will generally be due a refund. Complete a new Form W-4 when changes to your personal or financial situation would change the entries on the form. For more information on withholding and when you must furnish a new Form W-4, see Pub. 505, Tax Withholding and Estimated Tax.

Exemption from withholding. You may claim exemption from withholding for 2023 if you meet both of the following conditions: you had no federal income tax liability in 2022 and you expect to have no federal income tax liability in 2023. You had no federal income tax liability in 2022 if (1) your total tax on line 24 on your 2022 Form 1040 or 1040-SR is zero (or less than the sum of lines 27, 28, and 29), or (2) you were not required to file a return because your income was below the filing threshold for your correct filing status. If you claim exemption, you will have no income tax withheld from your paycheck and may owe taxes and penalties when you file your 2023 tax return. To claim exemption from withholding, certify that you meet both of the conditions above by writing "Exempt" on Form W-4 in the space below Step 4(c). Then, complete Steps 1(a), 1(b), and 5. Do not complete any other steps. You will need to submit a new Form W-4 by February 15, 2024.

Your privacy. If you have concerns with Step 2(c), you may choose Step 2(b); if you have concerns with Step 4(a), you may enter an additional amount you want withheld per pay period in Step 4(c).

Self-employment. Generally, you will owe both income and self-employment taxes on any self-employment income you receive separate from the wages you receive as an employee. If you want to pay income and self-employment taxes through withholding from your wages, you should enter the self-employment income on Step 4(a). Then compute your self-employment tax, divide that tax by the number of pay periods remaining in the year, and include that resulting amount per pay period on Step 4(c). You can also add half of the annual amount of self-employment tax to Step 4(b) as a deduction. To calculate self-employment tax, you generally multiply the self-employment income by 14.13% (this rate is a quick way to figure your self-employment tax and equals the sum of the 12.4% social security tax and the 2.9% Medicare tax multiplied by 0.9235). See Pub. 505 for more information, especially if the sum of self-employment income multiplied by 0.9235 and wages exceeds \$160,200 for a given individual.

Nonresident alien. If you're a nonresident alien, see Notice 1392, Supplemental Form W-4 Instructions for Nonresident Aliens, before completing this form.

Specific Instructions

Step 1(c). Check your anticipated filing status. This will determine the standard deduction and tax rates used to compute your withholding.

Step 2. Use this step if you (1) have more than one job at the same time, or (2) are married filing jointly and you and your spouse both work.

If you (and your spouse) have a total of only two jobs, you may check the box in option (c). The box must also be checked on the Form W-4 for the other job. If the box is checked, the standard deduction and tax brackets will be cut in half for each job to calculate withholding. This option is roughly accurate for jobs with similar pay; otherwise, more tax than necessary may be withheld, and this extra amount will be larger the greater the difference in pay is between the two jobs.



Multiple jobs. Complete Steps 3 through 4(b) on only one Form W-4. Withholding will be most accurate if you do this on the Form W-4 for the highest paying job.

Step 3. This step provides instructions for determining the amount of the child tax credit and the credit for other dependents that you may be able to claim when you file your tax return. To qualify for the child tax credit, the child must be under age 17 as of December 31, must be your dependent who generally lives with you for more than half the year, and must have the required social security number. You may be able to claim a credit for other dependents for whom a child tax credit can't be claimed, such as an older child or a qualifying relative. For additional eligibility requirements for these credits, see Pub. 501, Dependents, Standard Deduction, and Filing Information. You can also include **other tax credits** for which you are eligible in this step, such as the foreign tax credit and the education tax credits. To do so, add an estimate of the amount for the year to your credits for dependents and enter the total amount in Step 3. Including these credits will increase your paycheck and reduce the amount of any refund you may receive when you file your tax return.

Step 4 (optional).

Step 4(a). Enter in this step the total of your other estimated income for the year, if any. You shouldn't include income from any jobs or self-employment. If you complete Step 4(a), you likely won't have to make estimated tax payments for that income. If you prefer to pay estimated tax rather than having tax on other income withheld from your paycheck, see Form 1040-ES, Estimated Tax for Individuals.

Step 4(b). Enter in this step the amount from the Deductions Worksheet, line 5, if you expect to claim deductions other than the basic standard deduction on your 2023 tax return and want to reduce your withholding to account for these deductions. This includes both itemized deductions and other deductions such as for student loan interest and IRAs.

Step 4(c). Enter in this step any additional tax you want withheld from your pay **each pay period**, including any amounts from the Multiple Jobs Worksheet, line 4. Entering an amount here will reduce your paycheck and will either increase your refund or reduce any amount of tax that you owe.

Step 2(b)—Multiple Jobs Worksheet (Keep for your records.)

If you choose the option in Step 2(b) on Form W-4, complete this worksheet (which calculates the total extra tax for all jobs) on **only ONE** Form W-4. Withholding will be most accurate if you complete the worksheet and enter the result on the Form W-4 for the highest paying job. To be accurate, submit a new Form W-4 for all other jobs if you have not updated your withholding since 2019.

Note: If more than one job has annual wages of more than \$120,000 or there are more than three jobs, see Pub. 505 for additional tables.

- 1 Two jobs.** If you have two jobs or you're married filing jointly and you and your spouse each have one job, find the amount from the appropriate table on page 4. Using the "Higher Paying Job" row and the "Lower Paying Job" column, find the value at the intersection of the two household salaries and enter that value on line 1. Then, **skip** to line 3 **1** \$ _____
- 2 Three jobs.** If you and/or your spouse have three jobs at the same time, complete lines 2a, 2b, and 2c below. Otherwise, skip to line 3.
 - a** Find the amount from the appropriate table on page 4 using the annual wages from the highest paying job in the "Higher Paying Job" row and the annual wages for your next highest paying job in the "Lower Paying Job" column. Find the value at the intersection of the two household salaries and enter that value on line 2a **2a** \$ _____
 - b** Add the annual wages of the two highest paying jobs from line 2a together and use the total as the wages in the "Higher Paying Job" row and use the annual wages for your third job in the "Lower Paying Job" column to find the amount from the appropriate table on page 4 and enter this amount on line 2b **2b** \$ _____
 - c** Add the amounts from lines 2a and 2b and enter the result on line 2c **2c** \$ _____
- 3** Enter the number of pay periods per year for the highest paying job. For example, if that job pays weekly, enter 52; if it pays every other week, enter 26; if it pays monthly, enter 12, etc. **3** _____
- 4** **Divide** the annual amount on line 1 or line 2c by the number of pay periods on line 3. Enter this amount here and in **Step 4(c)** of Form W-4 for the highest paying job (along with any other additional amount you want withheld) **4** \$ _____

Step 4(b)—Deductions Worksheet (Keep for your records.)

- 1** Enter an estimate of your 2023 itemized deductions (from Schedule A (Form 1040)). Such deductions may include qualifying home mortgage interest, charitable contributions, state and local taxes (up to \$10,000), and medical expenses in excess of 7.5% of your income **1** \$ _____
- 2** Enter:

{	<ul style="list-style-type: none"> • \$27,700 if you're married filing jointly or a qualifying surviving spouse • \$20,800 if you're head of household • \$13,850 if you're single or married filing separately 	}	2 \$ _____
---	--	---	-----------	-------------------
- 3** If line 1 is greater than line 2, subtract line 2 from line 1 and enter the result here. If line 2 is greater than line 1, enter "-0-" **3** \$ _____
- 4** Enter an estimate of your student loan interest, deductible IRA contributions, and certain other adjustments (from Part II of Schedule 1 (Form 1040)). See Pub. 505 for more information **4** \$ _____
- 5** **Add** lines 3 and 4. Enter the result here and in **Step 4(b)** of Form W-4 **5** \$ _____

Privacy Act and Paperwork Reduction Act Notice. We ask for the information on this form to carry out the Internal Revenue laws of the United States. Internal Revenue Code sections 3402(f)(2) and 6109 and their regulations require you to provide this information; your employer uses it to determine your federal income tax withholding. Failure to provide a properly completed form will result in your being treated as a single person with no other entries on the form; providing fraudulent information may subject you to penalties. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation; to cities, states, the District of Columbia, and U.S. commonwealths and territories for use in administering their tax laws; and to the Department of Health and Human Services for use in the National Directory of New Hires. We may also disclose this information to other countries under a tax treaty, to federal and state agencies to enforce federal nontax criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism.

You are not required to provide the information requested on a form that is subject to the Paperwork Reduction Act unless the form displays a valid OMB control number. Books or records relating to a form or its instructions must be retained as long as their contents may become material in the administration of any Internal Revenue law. Generally, tax returns and return information are confidential, as required by Code section 6103.

The average time and expenses required to complete and file this form will vary depending on individual circumstances. For estimated averages, see the instructions for your income tax return.

If you have suggestions for making this form simpler, we would be happy to hear from you. See the instructions for your income tax return.

Married Filing Jointly or Qualifying Surviving Spouse

Higher Paying Job Annual Taxable Wage & Salary	Lower Paying Job Annual Taxable Wage & Salary											
	\$0 - 9,999	\$10,000 - 19,999	\$20,000 - 29,999	\$30,000 - 39,999	\$40,000 - 49,999	\$50,000 - 59,999	\$60,000 - 69,999	\$70,000 - 79,999	\$80,000 - 89,999	\$90,000 - 99,999	\$100,000 - 109,999	\$110,000 - 120,000
\$0 - 9,999	\$0	\$0	\$850	\$850	\$1,000	\$1,020	\$1,020	\$1,020	\$1,020	\$1,020	\$1,020	\$1,870
\$10,000 - 19,999	0	930	1,850	2,000	2,200	2,220	2,220	2,220	2,220	2,220	3,200	4,070
\$20,000 - 29,999	850	1,850	2,920	3,120	3,320	3,340	3,340	3,340	3,340	4,320	5,320	6,190
\$30,000 - 39,999	850	2,000	3,120	3,320	3,520	3,540	3,540	3,540	4,520	5,520	6,520	7,390
\$40,000 - 49,999	1,000	2,200	3,320	3,520	3,720	3,740	3,740	4,720	5,720	6,720	7,720	8,590
\$50,000 - 59,999	1,020	2,220	3,340	3,540	3,740	3,760	4,750	5,750	6,750	7,750	8,750	9,610
\$60,000 - 69,999	1,020	2,220	3,340	3,540	3,740	4,750	5,750	6,750	7,750	8,750	9,750	10,610
\$70,000 - 79,999	1,020	2,220	3,340	3,540	4,720	5,750	6,750	7,750	8,750	9,750	10,750	11,610
\$80,000 - 99,999	1,020	2,220	4,170	5,370	6,570	7,600	8,600	9,600	10,600	11,600	12,600	13,460
\$100,000 - 149,999	1,870	4,070	6,190	7,390	8,590	9,610	10,610	11,660	12,860	14,060	15,260	16,330
\$150,000 - 239,999	2,040	4,440	6,760	8,160	9,560	10,780	11,980	13,180	14,380	15,580	16,780	17,850
\$240,000 - 259,999	2,040	4,440	6,760	8,160	9,560	10,780	11,980	13,180	14,380	15,580	16,780	17,850
\$260,000 - 279,999	2,040	4,440	6,760	8,160	9,560	10,780	11,980	13,180	14,380	15,580	16,780	18,140
\$280,000 - 299,999	2,040	4,440	6,760	8,160	9,560	10,780	11,980	13,180	14,380	15,870	17,870	19,740
\$300,000 - 319,999	2,040	4,440	6,760	8,160	9,560	10,780	11,980	13,470	15,470	17,470	19,470	21,340
\$320,000 - 364,999	2,040	4,440	6,760	8,550	10,750	12,770	14,770	16,770	18,770	20,770	22,770	24,640
\$365,000 - 524,999	2,970	6,470	9,890	12,390	14,890	17,220	19,520	21,820	24,120	26,420	28,720	30,880
\$525,000 and over	3,140	6,840	10,460	13,160	15,860	18,390	20,890	23,390	25,890	28,390	30,890	33,250

Single or Married Filing Separately

Higher Paying Job Annual Taxable Wage & Salary	Lower Paying Job Annual Taxable Wage & Salary											
	\$0 - 9,999	\$10,000 - 19,999	\$20,000 - 29,999	\$30,000 - 39,999	\$40,000 - 49,999	\$50,000 - 59,999	\$60,000 - 69,999	\$70,000 - 79,999	\$80,000 - 89,999	\$90,000 - 99,999	\$100,000 - 109,999	\$110,000 - 120,000
\$0 - 9,999	\$310	\$890	\$1,020	\$1,020	\$1,020	\$1,860	\$1,870	\$1,870	\$1,870	\$1,870	\$2,030	\$2,040
\$10,000 - 19,999	890	1,630	1,750	1,750	2,600	3,600	3,600	3,600	3,600	3,760	3,960	3,970
\$20,000 - 29,999	1,020	1,750	1,880	2,720	3,720	4,720	4,730	4,730	4,890	5,090	5,290	5,300
\$30,000 - 39,999	1,020	1,750	2,720	3,720	4,720	5,720	5,730	5,890	6,090	6,290	6,490	6,500
\$40,000 - 59,999	1,710	3,450	4,570	5,570	6,570	7,700	7,910	8,110	8,310	8,510	8,710	8,720
\$60,000 - 79,999	1,870	3,600	4,730	5,860	7,060	8,260	8,460	8,660	8,860	9,060	9,260	9,280
\$80,000 - 99,999	1,870	3,730	5,060	6,260	7,460	8,660	8,860	9,060	9,260	9,460	10,430	11,240
\$100,000 - 124,999	2,040	3,970	5,300	6,500	7,700	8,900	9,110	9,610	10,610	11,610	12,610	13,430
\$125,000 - 149,999	2,040	3,970	5,300	6,500	7,700	9,610	10,610	11,610	12,610	13,610	14,900	16,020
\$150,000 - 174,999	2,040	3,970	5,610	7,610	9,610	11,610	12,610	13,750	15,050	16,350	17,650	18,770
\$175,000 - 199,999	2,720	5,450	7,580	9,580	11,580	13,870	15,180	16,480	17,780	19,080	20,380	21,490
\$200,000 - 249,999	2,900	5,930	8,360	10,660	12,960	15,260	16,570	17,870	19,170	20,470	21,770	22,880
\$250,000 - 399,999	2,970	6,010	8,440	10,740	13,040	15,340	16,640	17,940	19,240	20,540	21,840	22,960
\$400,000 - 449,999	2,970	6,010	8,440	10,740	13,040	15,340	16,640	17,940	19,240	20,540	21,840	22,960
\$450,000 and over	3,140	6,380	9,010	11,510	14,010	16,510	18,010	19,510	21,010	22,510	24,010	25,330

Head of Household

Higher Paying Job Annual Taxable Wage & Salary	Lower Paying Job Annual Taxable Wage & Salary											
	\$0 - 9,999	\$10,000 - 19,999	\$20,000 - 29,999	\$30,000 - 39,999	\$40,000 - 49,999	\$50,000 - 59,999	\$60,000 - 69,999	\$70,000 - 79,999	\$80,000 - 89,999	\$90,000 - 99,999	\$100,000 - 109,999	\$110,000 - 120,000
\$0 - 9,999	\$0	\$620	\$860	\$1,020	\$1,020	\$1,020	\$1,020	\$1,650	\$1,870	\$1,870	\$1,890	\$2,040
\$10,000 - 19,999	620	1,630	2,060	2,220	2,220	2,220	2,850	3,850	4,070	4,090	4,290	4,440
\$20,000 - 29,999	860	2,060	2,490	2,650	2,650	3,280	4,280	5,280	5,520	5,720	5,920	6,070
\$30,000 - 39,999	1,020	2,220	2,650	2,810	3,440	4,440	5,440	6,460	6,880	7,080	7,280	7,430
\$40,000 - 59,999	1,020	2,220	3,130	4,290	5,290	6,290	7,480	8,680	9,100	9,300	9,500	9,650
\$60,000 - 79,999	1,500	3,700	5,130	6,290	7,480	8,680	9,880	11,080	11,500	11,700	11,900	12,050
\$80,000 - 99,999	1,870	4,070	5,690	7,050	8,250	9,450	10,650	11,850	12,260	12,460	12,870	13,820
\$100,000 - 124,999	2,040	4,440	6,070	7,430	8,630	9,830	11,030	12,230	13,190	14,190	15,190	16,150
\$125,000 - 149,999	2,040	4,440	6,070	7,430	8,630	9,980	11,980	13,980	15,190	16,190	17,270	18,530
\$150,000 - 174,999	2,040	4,440	6,070	7,980	9,980	11,980	13,980	15,980	17,420	18,720	20,020	21,280
\$175,000 - 199,999	2,190	5,390	7,820	9,980	11,980	14,060	16,360	18,660	20,170	21,470	22,770	24,030
\$200,000 - 249,999	2,720	6,190	8,920	11,380	13,680	15,980	18,280	20,580	22,090	23,390	24,690	25,950
\$250,000 - 449,999	2,970	6,470	9,200	11,660	13,960	16,260	18,560	20,860	22,380	23,680	24,980	26,230
\$450,000 and over	3,140	6,840	9,770	12,430	14,930	17,430	19,930	22,430	24,150	25,650	27,150	28,600

APPENDIX B



BOARD MEMBER PAY
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
ADMINISTRATION
SFN 58674 (7/2023)

Last Name	First Name	Employee ID Number	Date
Note: Please submit to Department of Water Resources Human Resources on the last day of each month.			
Beginning Date	Ending Date	1/2 Day	Full Day
Location			
Purpose Of Meeting			
Beginning Date	Ending Date	1/2 Day	Full Day
Location			
Purpose Of Meeting			
Beginning Date	Ending Date	1/2 Day	Full Day
Location			
Purpose Of Meeting			
Beginning Date	Ending Date	1/2 Day	Full Day
Location			
Purpose Of Meeting			
Beginning Date	Ending Date	1/2 Day	Full Day
Location			
Purpose Of Meeting			
SUBTOTAL		\$102.50	\$205.00
		1/2 Day	Full Day
TOTAL		1/2 Day \$ 0.00	Full Day \$ 0.00
Signature		Date	
Approval		Date	

SFN 52785 (03-2015)

[illegible]

INSTRUCTIONS FOR THE TRAVEL EXPENSE VOUCHER

Be sure to "Tab" from one field to another, rather than using the mouse.

Month – Enter the month of travel.

Year – Enter the year of travel.

Department Name – Enter the name of your Agency.

Official Position – Enter your job title.

Employee Name – Enter your name.

Employee ID – This number is assigned by payroll.

Business Unit – Your agency's 5-digit number.

Fiscal Month – Enter the fiscal month.

Biennium – Enter the biennium.

Day - Enter the day of the month in which the activity occurred.

Points Covered By Travel – Enter the departure/destination points.

Hour – Enter the departures and arrival time for the actual travel day (example: 7:00 am).

Vehicle Miles – Enter the number of vehicle miles traveled. If you have in state and out of state miles, separate them and list them on separate lines.

Ref – Enter an "I" for in-state travel or an "O" for out-of-state travel. **If this is not entered, the form will not calculate correctly.**

Comm'l Air Trans. – Enter the amount of commercial air transportation.

Ref – Enter an "I" for in-state travel or an "O" for out-of-state travel. **If this is not entered, the form will not calculate correctly.**

Taxi & Other Air Trans. – Enter taxi fares and any other air transportation.

Ref – Enter an "I" for in-state travel or an "O" for out-of-state travel. **If this is not entered, the form will not calculate correctly.**

Misc. Exp – Enter your other expenses that do not belong in any other column. Explain these expenses in the "Purpose of Travel and Explanation of Expenses" section.

Meals In State – Enter the dollar amount of the meals in state.

Meals Out of State – Enter the dollar amount of the meals out-of-state.

Ref – Enter a "T" if your meals are taxable. Meals are taxable if no overnight stay is involved.

Lodging in State – Enter the dollar amount of lodging in state.

Lodging Out of State – Enter the dollar amount of lodging out-of-state.

Purpose of Travel and Explanation of Expenses – Enter the reason for travel and any explanations for your miscellaneous expenses.

The amounts entered in the top section of the form will automatically be totaled and filled in the appropriate fields of the middle section, as long as the correct reference codes were entered and you used the tab key to navigate between fields. The only exceptions are the following two fields:

Vehicle Miles in State – Calculates the total vehicle miles traveled within the state. You will need to enter the current rate. The total will then automatically calculate.

Vehicle Miles out of State – Calculates the total vehicle miles out of state. You will need to enter the current rate. The total will automatically calculate.

Total Expenses – Calculates the total expenses automatically.

Ref. Doc. No. of Advance – Enter the document number if you received a travel advance and the dollar amount.

Net Expenses – Calculates the net expenses automatically.

Print two copies of the Travel Expense Voucher.

Sign one copy, attach all of your receipts, and submit it for approval. Once approved and forwarded to accounting, the bottom fields will be cost-coded and entered. Remember to keep copies of the receipts for yourself as well.

APPENDIX C

The background of the document is a photograph of a flooded forest. Bare, dark tree trunks and branches are visible, some partially submerged in murky water. The sky is overcast and grey. A large, dark blue rectangular box with a red top border is overlaid on the image, containing the title and other text.

CONFLICTS OF INTEREST

POLICY | SWC_02.2023

NORTH
Dakota | Water Commission
Be Legendary.™

Effective Date 10/12/2023

OUTLINE

1	SUMMARY	3
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1 SUMMARY

State Water Commissioners represent the eight drainage basins in North Dakota and are appointed by the Governor to represent the various interests of water resource constituents across the state.

The North Dakota Ethics Commission was established in 2018 by an initiated measure to create Article XIV of the North Dakota Constitution. The Ethics Commission has oversight over the Commission, and these guidelines were developed in response to the Ethics Commission's Conflict of Interest (COI) training provided to the Commission in 2022.

In some cases, Commissioners may have relationships to entities that come before the Commission, including requesting funding for infrastructure related projects. SWC_02 outlines the general guidelines and processes that Commissioners must follow when there is a Potential Conflict of Interest (Potential COI).

1.1 AUTHORITY OR IMPLEMENTATION

These guidelines garner authority from North Dakota Century Code (N.D.C.C.) § 54-66-04.2 and North Dakota Administrative Code (N.D.A.C) Article 115-04.

1.2 ACCEPTANCE OR ENFORCEMENT

These guidelines will be updated as necessary to ensure the Commission fulfills its statutory duties.

2 DISCLOSURE PROCEDURES

2.1 DISCLOSURE AT REGULAR COMMISSION MEETINGS

The disclosure of Potential COIs will be an agenda item at each Commission meeting. During this agenda item the following will occur:

- a. Each Commissioner will disclose their Potential COIs and indicate if those Potential COIs are relevant to any of the upcoming agenda items.
- b. The Neutral Reviewer will determine if the Potential COIs are Disqualifying COIs for any items on the agenda and fill out the Conflict of Interest Disclosure Form (Appendix A) for each Potential COI. Common occurrences are listed in Section 4. The Neutral Reviewer will give appropriate weight and deference to the Commissioner to perform their duties provided that the Commissioner has properly disclosed the Potential COIs as required in code.
 - If a Potential COI is determined to be a Disqualifying COI, the Commissioner will be required to abstain from voting on specified agenda items.
 - If a Potential COI is determined not to be a Disqualifying COI, the Commissioner will be able to vote on all agenda items.
- c. After each meeting, a copy of the Conflict of Interest Disclosure Forms will be retained by the Department of Water Resources (DWR) and submitted to the Ethics Commission by the Secretary.

2.2 DISCLOSURE OF ONGOING POTENTIAL CONFLICTS OF INTEREST

By virtue of their appointment to the Commission, Commissioners may have an ongoing Potential COI that will need to be disclosed. Commissioners may disclose their ongoing Potential COI on an annual basis by filling out the Conflict of Interest Disclosure Form and submitting it to the Neutral Reviewer at the first meeting of the year. The Neutral Reviewer will review the submission and make a determination on the status of the COI. The DWR will retain a copy of the form, and a copy will be submitted to the Ethics Commission by the Secretary.

Commissioners with ongoing Potential COIs are not exempt from Section 2.1 and are still required to verbally disclose their COIs during the meeting and abstain from voting as determined by the Neutral Reviewer.

3 NEUTRAL REVIEWER

For the purpose of these guidelines, the Commission has designated their General Counsel to be their Neutral Reviewer.

N.D.A.C. § 115-04-01-03(7) reads as follows:

The following standards shall guide the review and decision of either a public official or the neutral reviewer with respect to any public official's potential conflict of interest:

- a. Appropriate weight and proper deference must be given to the requirement that a public official perform the duties of elected or appointed office, including the duty to vote or otherwise act upon a matter, provided the public official has properly disclosed the potential conflict of interest as required by this rule.
- b. A decision that requires a public official to recuse or abstain from further action or decision in a matter should only occur in cases where the independence of judgment of a reasonable person in the public official's situation would be materially affected by the disclosed potential conflict of interest.
- c. The review of a potential conflict of interest and any decision that would require a public official to recuse themselves or abstain from further involvement in a matter shall consider any applicable North Dakota law which precludes the public official from recusal or abstention in the matter.
- d. It is presumed that a public official does not have a disqualifying conflict of interest if the public official would not derive any personal benefit which is greater than that accruing to any other member of the general public or any general business, profession, occupation, or group affected by the matter.
- e. Any guidance issued by the ethics commission, including informal guidance, advisory opinions, rules, standards, and precedent.

4 COMMON OCCURANCES

The scenarios below indicate the Commission's current guidelines regarding specific Potential COIs. Other COIs may exist, and this list is not meant to be exhaustive. See Section 2.1 for procedures regarding COI's outside of this list.

4.1 COMMISSIONER AS A CUSTOMER

It is not a Potential COI when a Commissioner is a customer of an entity that directly provides water to the Commissioner at their business or residence.

Unless there are other circumstances, Commissioners are able to vote on the following:

- a. Project that would benefit the entire entity.
- b. Project that would directly benefit the Commissioner's business or residence such as a flood protection project or water line expansion.
- c. Project that would directly benefit the Commissioner that is funded through a special assessment that is assessed at the same level as the rest of the assessment district.

4.2 COMMISSIONER AS A REPRESENTATIVE OF A POLITICAL SUBDIVISION

It is a Potential COI when a Commissioner serves on a water board, water supply authority, or other similar political subdivision or oversight body.

In general, Commissioners will be required to abstain from voting on the following:

- a. Cost-share for a project from the board on which they sit.
- b. Policy or funding for a state-owned project from the Authority on which they sit.
- c. Project that would benefit the community for which they represent.

4.3 COMMISSIONER AS A CONSULTANT

It is a Potential COI when a Commissioner is an employee at a consulting firm that works on water resource projects.

In general, a Commissioner will be required to abstain from voting when the Commissioner's firm represents the entity requesting cost-share.

5 DEFINITIONS

Commission: State Water Commission as defined in N.D.A.C. §89-01-01-02

Commissioners: Members of the State Water Commission

Disqualifying Conflict of Interest (Disqualifying COI): Defined in N.D.A.C. § 115-04-01-01 as one of the following:

- a. “A potential conflict of interest disclosed pursuant to this rule which the public official has determined requires recusal and abstention from further action in the matter; or
- b. A potential conflict of Interest disclosed pursuant to this rule which the neutral reviewer has determined requires the public official to recuse and abstain from further action in the matter.”

Potential Conflict of Interest (Potential COI): Defined in N.D.A.C. § 115-04-01-01 as “a public official as part of the public official's duties must make a decision or take action in a matter in which the public official has:

- a. Received a gift from one of the parties;
- b. A significant financial interest in one of the parties or in the outcome of the proceeding; or
- c. A relationship in private capacity with one of the parties.”

Immediate Family: Defined in N.D.A.C. § 115-04-01-01 as “a public official's parent, sibling, spouse, grandparent, grandchild, stepchild, or child by blood or adoption.”

Neutral Reviewer: Defined in N.D.A.C. § 115-04-01-01 as “the individual or committee designated by an agency, legislative body, board, commission, or committee to receive disclosures of potential conflicts of interest and determine whether the potential conflict of interest is a disqualifying conflict of interest. In the absence of a rule or policy designating a neutral reviewer, the following shall apply:

- a. If a public official with a potential conflict of interest is a member of a legislative body, board, commission, or committee the remaining individuals who are members of the legislative body, board, commission, or committee shall be considered as the neutral reviewer;
- b. If a public official with a potential conflict of interest is an employee of the legislature, the public official's supervisor may be considered as the neutral reviewer;
- c. If a public official with a potential conflict of interest is a member of the governor's cabinet, the governor's designated ethics officer shall be considered as the neutral reviewer;
- d. If the public official with a potential conflict of interest is an appointed public official, the appointing official shall be considered as the neutral reviewer; or
- e. If none of the above apply, the public official shall make the determination but must report the disclosure and decision in the manner set forth in section 115-04-01-04 within seven calendar days.”

For the purpose of these guidelines, the Commission has designated their General Counsel to be their Neutral Reviewer.

Ongoing Potential Conflict of Interest: An Ongoing Potential Conflict of Interest is a Potential Conflict of Interest that lasts for longer than one year. For example, a water board or authority appointment or employment with an engineering, legal, environmental, or other private firm.

Public Official: Defined in N.D.A.C. § 115-04-01-01 as “any elected or appointed official of the North Dakota executive or legislative branches, including members of the ethics commission, members of the governor's cabinet, and employees of the legislative branch.”

Commissioners are public officials.

Relationship in a Private Capacity: Defined in N.D.A.C. § 115-04-01-01 as “a past or present commitment, interest or relationship of the public official in a matter involving the public official's immediate family, individual's residing in the public official's household, the public official's employer, or employer of the public official's immediate family, or individuals with whom the public official has a substantial and continuous business relationship.”

Secretary: As defined in N.D.C.C. § 61-02-05, “the director of the department of water resources is the secretary of the commission.”

Significant Financial Interest: Defined in N.D.A.C. § 115-04-01-01 as “a direct and substantial in-kind or monetary interest, or its equivalent, not shared by the general public; however, does not include investments in a widely held investment fund, such as mutual funds, exchange-traded funds, participation in a public employee benefits plan, or lawful campaign contributions.”

6 HISTORY

Policy Adopted: 8/10/2023

Policy Effective: 10/12/2023

Previous Revision(s): No Revisions Available

CONFLICT OF INTEREST DISCLOSURE FORM

Pursuant to N.D.A.C 115-04-01-04, disclosure of conflicts of interest are required. This form allows public officials and directors, officers, commissioners, heads, or other executives of agencies to input information and attach relevant documentation as required.

The Neutral Reviewer or director, officer, commissioner, head, or other executive shall document the decision regarding a disclosure of a possible conflict of interest. Upon completion, the Neutral Reviewer or director, officer, commissioner, head, or other executive shall provide a copy of the completed form to the disclosing Public Official, the relevant department, agency, board, body, commission or committee, and to the North Dakota Ethics Commission.

Departments, agencies, boards, commissions or public entities shall document in the official minutes of a proceeding information, if applicable, that a Public Official or director, officer, commissioner, head, or other executive has been recused from any further involvement in the matter.

Reporting Official's Name:

Associated Entity/Organization:

Title or Position of Reporting Official:

Phone #:

Email Address:

Detailed Description of Conflict of Interest:

DETERMINATION

Determining Authority:

Place a check mark
by appropriate box

<input type="checkbox"/>	Self-Reporting Official
<input type="checkbox"/>	Remaining members of a legislative body, board, commission or committee
<input type="checkbox"/>	Public Official's Supervisor
<input type="checkbox"/>	Governor's Designated Ethics Officer
<input type="checkbox"/>	Appointing Official

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

Signature_____

NDEC Form Approval Date 08/17/2022

TO: Governor Doug Burgum
Members of the State Water Commission
FROM: Andrea Travnicek, Ph.D., Secretary
SUBJECT: SWPP Feasibility Criteria Discussion
DATE: November 6, 2023

Background Regarding Burt Hebron Service Area Expansion:

The Southwest Pipeline Project's (SWPP's) three pronged approach for distribution capacity expansion plan includes rural distribution expansion into underserved areas. In February 2021, the Southwest Water Authority (SWA) voted to proceed with signup campaign in the Burt and Hebron service areas including Lake Tschida. SWC concurred with that request in April 2021. SWPP is currently in the preliminary design phase of the expansion in the Burt and Hebron service areas.

As of September 2023, in the Burt-Hebron service area there are over 689 signups with 257 around Lake Tschida and 432 in rural areas. The preliminary design for Burt Hebron Service Area expansion is divided into five sub areas: Hebron Service area with Hebron Rural and Curlew Butte pocket area; Burt Service area with Burt Rural and Burt VFD pocket area; and service to Flasher. The analysis for service to Flasher is not completed yet. Attachment 1 is the map showing the Burt-Hebron Expansion Service Area. Preliminary design analysis for the Burt and Hebron Service areas has been completed for two scenarios – 1.25-mile criteria and 2.5-mile criteria. The distance in the criteria defines the distance to which the signups can be served and the distance to which potential customers are identified. Based on the cost estimate using recent bid prices on other projects, the 1.25 miles equates to a project cost/user of approximately \$150,000 and the 2.5 miles equates to a project cost/user of \$290,000.

The most recent preliminary summary of costs without service to Flasher is attached as Attachment 2. The current total estimated cost is approximately \$77 million. Attachment 2 also has the estimates for Burt and Hebron rural areas with costs for service to Lake Tschida separated out. Typically, on the SWPP, the main transmission pipeline is built to a city and a community and the rural distribution is built around it.

Attached (Attachment 3) is the letter from Southwest Water Authority (SWA) manager, Jen Murray dated August 23, 2023, with proposals for modification to the feasibility criteria.

The current SWPP feasibility criteria were developed for rural distribution contracts for the SWPP. The criteria were established in 1992 and adopted by SWA and the SWC in 1993. The criteria were revisited in 2000 but not changed. Therefore, the criteria established in 1993 has remained the same throughout.

The feasibility criteria exists within the SWPP because of the SWPP's unique nature within our state. The SWPP is one of two (Northwest Area Water Supply (NAWS) being the other) regional water systems owned by the state. SWPP is different than NAWS in that it includes retail rural customers served by the system and also has an operating entity, SWA, to manage the operations of the system, with expansion interests. The feasibility criteria is in place to make sure that the expansion is reasonable. Since the SWPP's funding structure includes capital repayment from users that are set to escalate annually with the Consumer Price Index (CPI) instead of termed loan repayments, its funding approach is distinctly different from other rural systems throughout the state. Because of this different funding approach, limits on construction costs for expansion was set to responsibly use state funding.

- The current feasibility criteria has two main components:
 - The first component is sign-up percentage.
 - Minimum 50% sign-up percentage is needed to proceed with construction. It should be noted that the potential customers included in the sign-up percentage calculation is dependent on the preliminary design.
 - The second component defines a maximum cost limit per rural ESU (equivalent service unit).
 - There is no maximum average cost per user for each service area, but the maximum cost for a single ESU will be applied to groups of users
 - The maximum cost per ESU shall apply to individual hookups and multiples of individual hookups
 - Maximum Cost per user is adjusted by the Consumer Price Index (CPI) and the initial limit was based on \$25,000 as of October 1992. The adjustment based on CPI was decided as the Capital Repayment for the project was adjusted by CPI.
 - Transmission and storage facilities will not be included in the determination of the cost for a single ESU
 - Pocket areas, which have an average cost per ESU that exceeds the maximum cost per ESU criteria, will be identified and then reviewed by SWC and SWA.

Maximum cost limit per rural ESU was established in 1992 at \$25,000/ESU. The background for the maximum cost limit of \$25,000/ESU is not formally documented. But based on discussion with SWPP Project Manager during that time, it was noted that the agency considered what other rural systems could afford for a single remote user and determined the limit for individual SWPP user to be equitable to other systems.

DWR Staff's Thoughts Regarding Each of the Three Items Proposed in the SWA's August 23rd Letter:

1. Increase the maximum cost limit per equivalent service unit (ESU) to \$80,000 at a 50% sign-up rate with a tiered increase to \$160,000 at a 100% sign-up rate, continue to index the maximum cost limit per ESU and the base monthly minimum by the Consumer Price Index (CPI), increase the standard customer capital repayment rate by a flat \$16 per month prorated for pasture tap and high consumption customers.

1.1 DWR staff recommendation on increasing the feasibility criteria cost to \$80,000 based on a flat \$16 increase in Capital Repayment:

On the SWPP, as noted above, the maximum cost for construction towards a rural customer is tied to the Capital Repayment which is adjusted based on the CPI. This approach assumes that any expansion project fits within the feasibility criteria policy that was adopted. However, the current construction costs increases have exceeded the traditional inflation represented by the CPI increases.

We agree with the SWA's proposal that with an increase in the feasibility criteria for a specific subset of users, it is responsible to apply a surcharge to those users. However, DWR staff recommendation is to correlate the surcharge amount and the adjusted feasibility criteria mathematically while also being mindful of fairness with other rural water systems. While other rural water systems have a different funding model, the nature of use is similar and thus the cost for service should be similar. With the above in mind, we believe that the users within an area where the feasibility criteria is increased should be subject to a surcharge amount that is proportional to the user's 25% share of that work if loaned over 40 years at 0% interest. The 0% interest is suggested as the Capital Repayment already has the CPI adjustment which is akin to interest. DWR also recommends that the surcharge is not subjected to base capital repayment CPI increases.

With the above logic, we could calculate the rate of surcharge proportional to the increase in feasibility criteria as follows. If the feasibility criteria based on current criteria is expected to be \$55,200 and an example amount of \$80,000 for the new feasibility criteria amount, the difference in feasibility criteria amounts is \$25,800. If responsible to payback 25% of that amount and if over 40 years at 0% interest, the monthly surcharge amount would be \$13.44. With each \$10,000 increase to the feasibility criteria amount, it equates to \$5.21 increase in the surcharge amount. Therefore, if the feasibility criteria amount was \$90,000, the monthly surcharge would be \$18.65 and so on.

1.2 DWR staff recommendation on increase in feasibility criteria cost with increase in signup percentage:

DWR staff does not support an increase in the feasibility criteria with an increase in the signup percentage. While the increase in signup percentage does reflect an increase in capital repayment because there are more users to pay, the fact remains that our expectation is that users pay back 25% of the cost of the improvements. For rural water systems, the payback amount ends up being a defined 25% through the cost share program but given the funding model of the SWPP, payback percentage is less defined, but still a basic goal to receive 25% of costs. This leaves 75% of the cost to be paid for by the state. Increasing that feasibility criteria amount with an increase in signup percentage also increases the total amount due to the state disproportional to the accelerated cost of reaching these areas. Therefore, we believe it is best to simply keep any increase in feasibility criteria proportional to an increase in the surcharge amounts as described in section 1.1.

2. Include new customers, pasture taps, and subsequent customers in the calculation for signup percentage, and do not include subsequent customers in the calculation for maximum cost per ESU.

DWR staff recommendation:

DWR staff thinks it is justifiable to include existing subsequent customers and agrees with SWA's justification provided in the letter which notes that these subsequent customers would be signing up now if they had not spent the money on their own already to get served from the SWPP. In the Burt-Hebron Service Area, the existing subsequent customers total 165 customers with 133.5 Equivalent Service Unit. It should be noted that the number of potential customers included in the signup percentage calculation changes as it is calculated 1.25 miles to 2.5 miles around the preliminary design pipeline. The table below shows the impact of including existing subsequent customers in the signup percentage calculation is 5%.

Current signups	689
Existing Subsequent Customers	167
Potential Customers in Burt Hebron (1.25 mile design)	492
Potential Customers in Burt Hebron (2.5 mile design)	518
Assumed potential customers number for signup percentage calculation	500
Sign up percentage without Subsequent	58%
Sign up percentage with Subsequent	63%

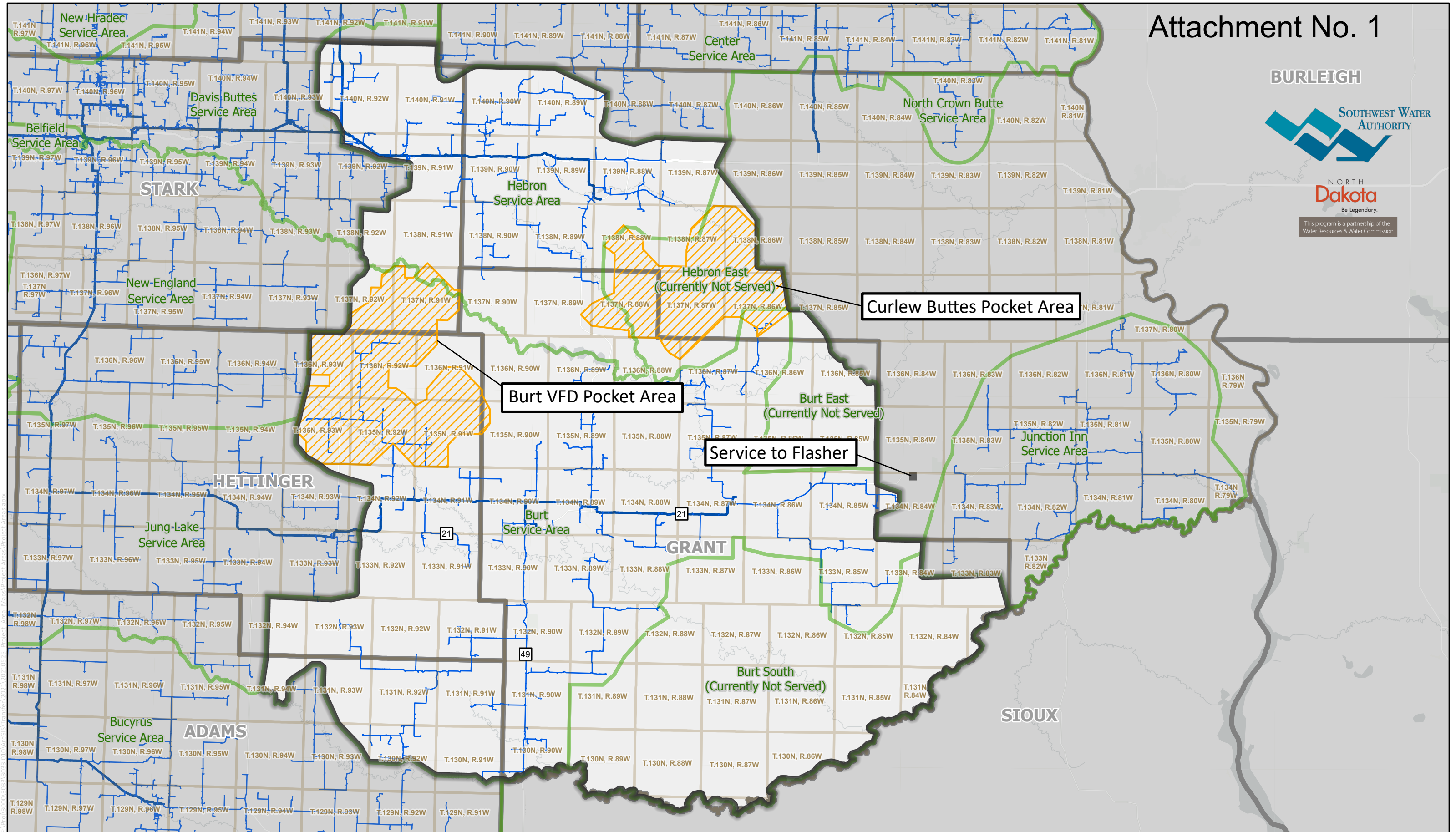
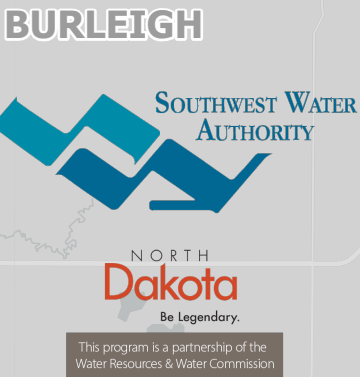
3. *The 8-10" main transmission line (MTL) and a portion of the 6" MTL designed for the Burt-Hebron Service Area are to be excluded from the maximum cost per ESU criteria and to consider exclusion of parallels on a case-by-case basis.*

DWR staff thoughts:

Historically on SWPP the main lines are completed to a town, community or a contract customer and the rural distribution lines are built around it. In the Burt-Hebron SA, other than the town of Flasher there are no other contract customers. The 8-10" main transmission line and the 6" MTL are necessary to serve a high density area like Lake Tschida and pocket users. Based on the historic use of feasibility criteria used only on rural distribution lines, DWR staff thinks including or not including the 8-10" MTL and 6" MTL in the feasibility criteria is worth further consideration. DWR staff would like to further evaluate including or not including 8-10" MTL and 6" MTL in the feasibility criteria. More information on this and a recommendation will be provided at a future meeting. Parallel lines or booster station elements could be considered on a case by case basis as well.

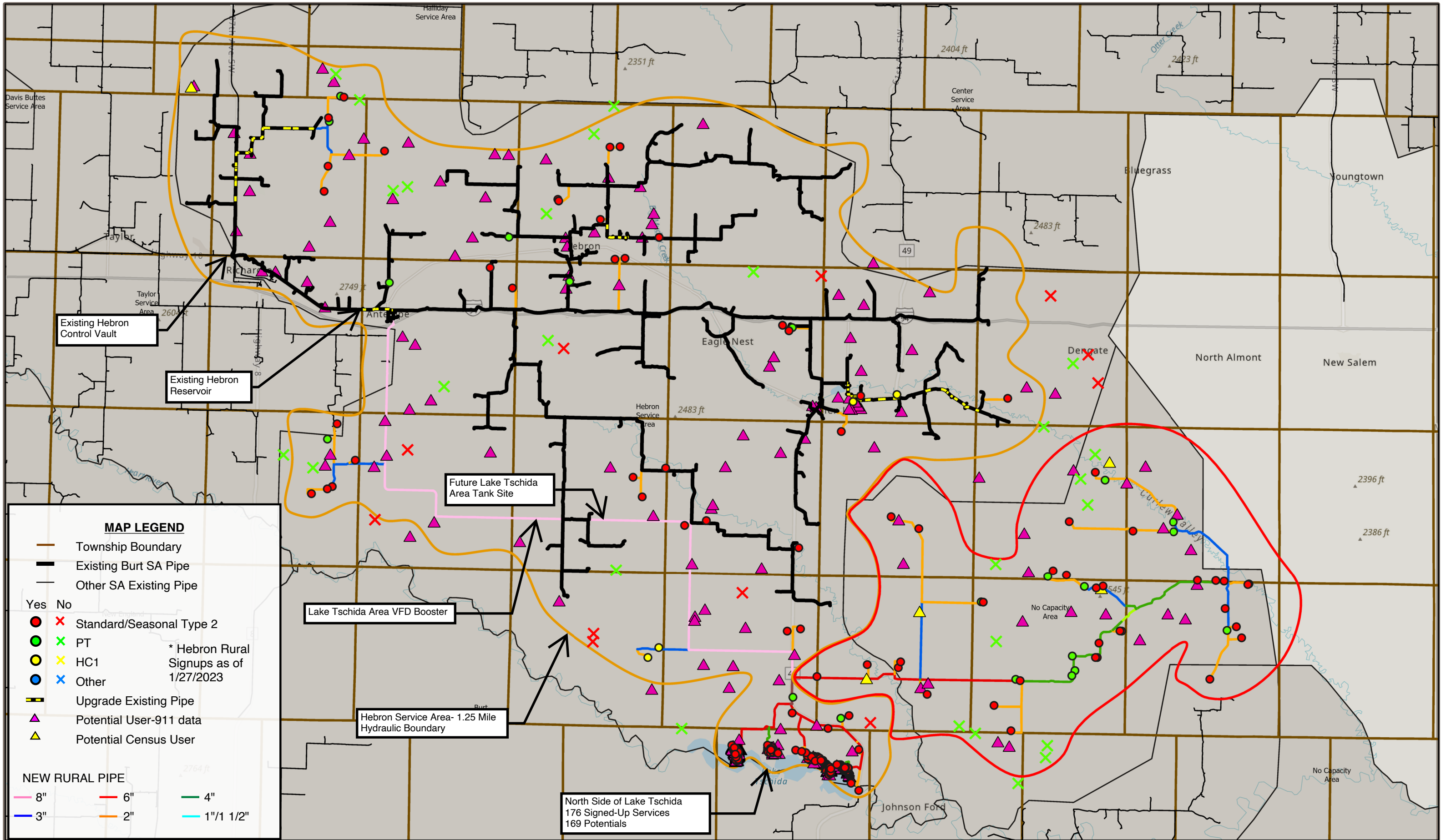
Rates Comparison:

To assist with contextualizing the information against a similar project's impact to a traditional rural system's rates, attachment 4 is included. For this attachment, the SWA, Burt-Hebron area is shown with a \$13.44 surcharge which is what it would be if going to the \$80,000 feasibility criteria number under our recommended approach. Attachment 4.1 shows how both the SWPP's current monthly minimum and SWPP's monthly minimum with the proposed surcharge compares other rural systems in the State. Attachment 4.2 shows that comparison with 6,000 gallons used by each system.

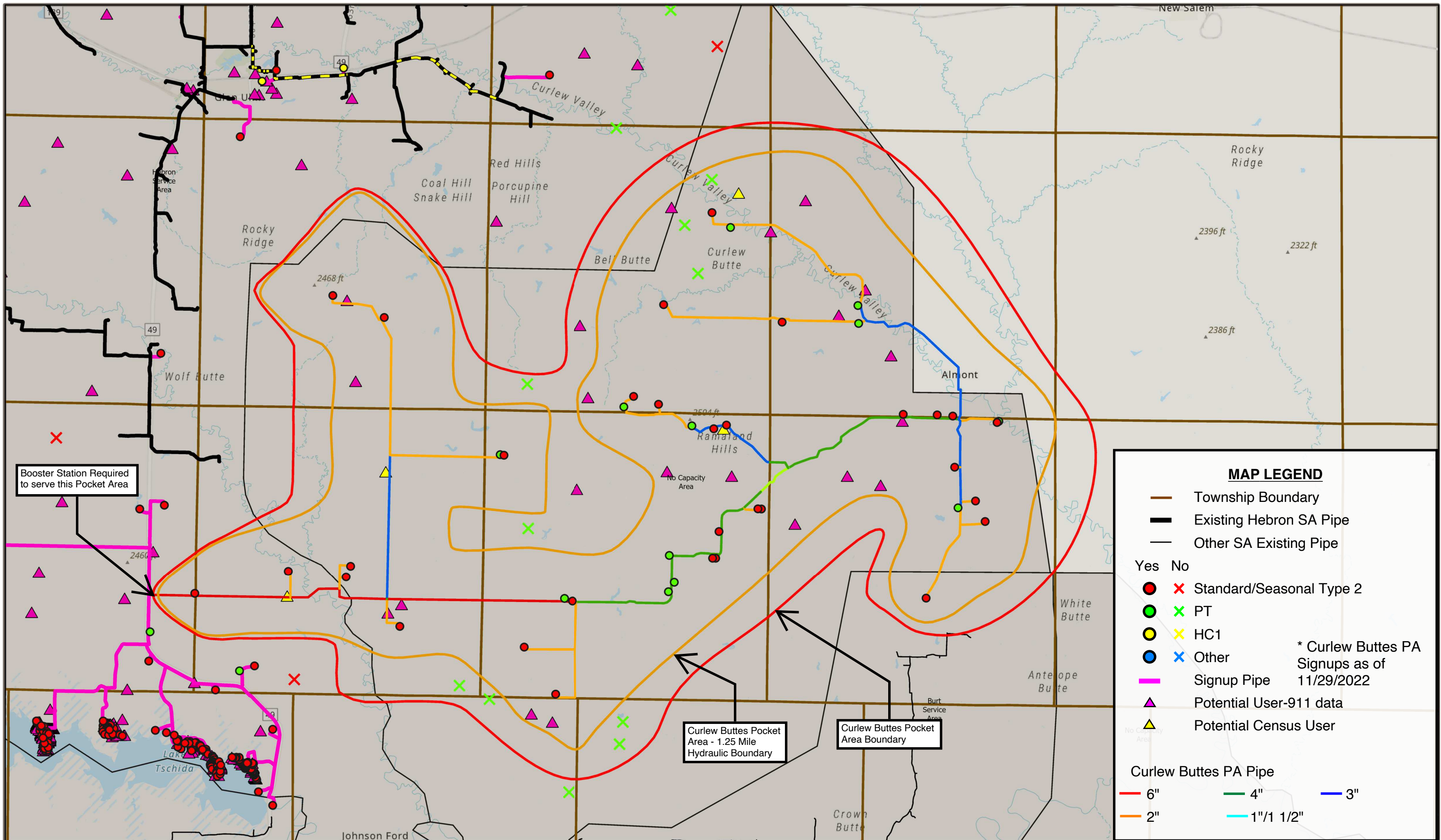


Southwest Pipeline Project

Burt, Hebron Signup Area



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MAP LEGEND

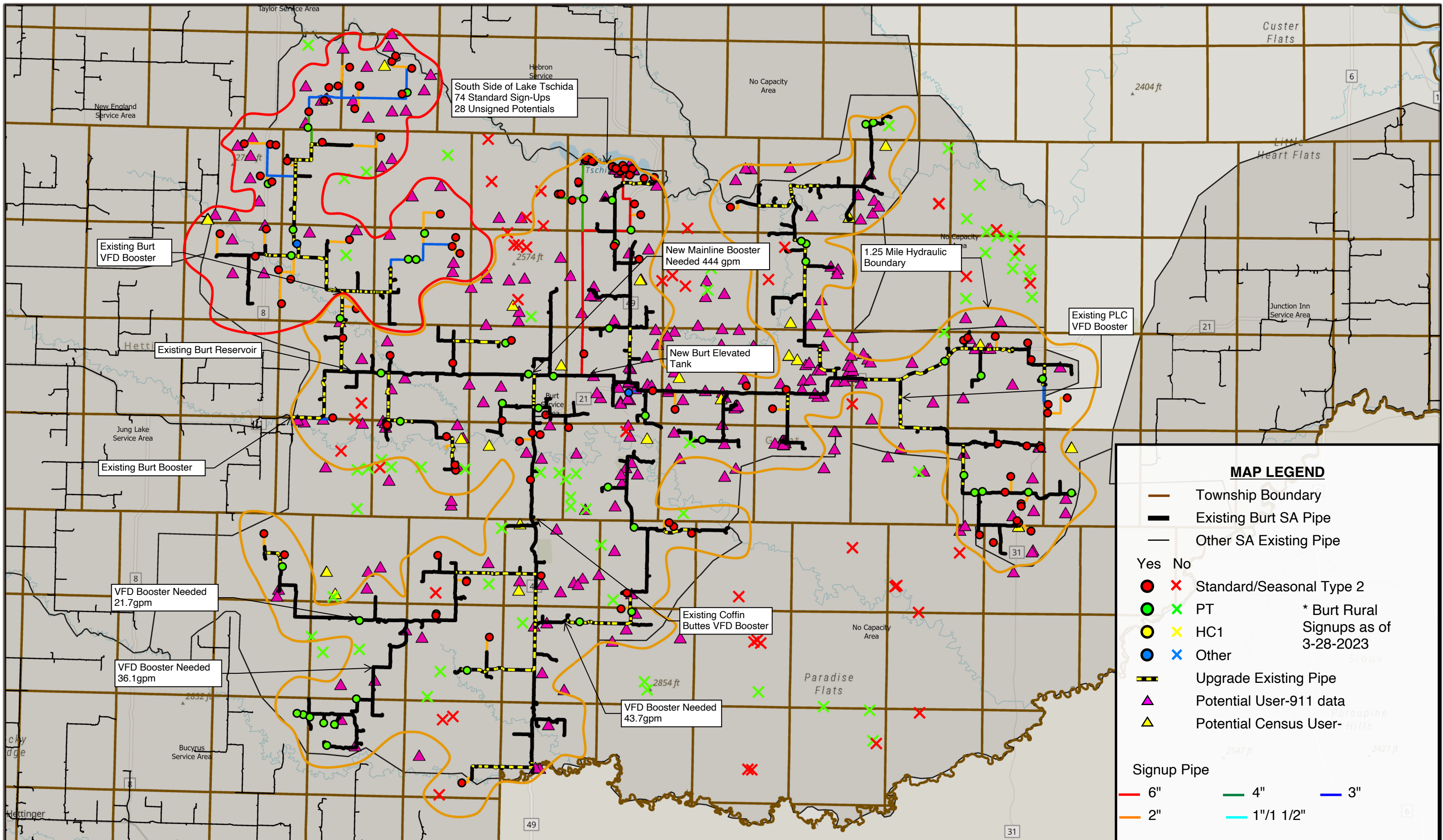
—	Township Boundary
—	Existing Hebron SA Pipe
—	Other SA Existing Pipe
Yes	No
●	✗ Standard/Seasonal Type 2
●	✗ PT
●	✗ HC1
●	✗ Other
—	Signup Pipe
▲	Potential User-911 data
▲	Potential Census User

* Curlew Buttes PA Signups as of 11/29/2022

Curlew Buttes PA Pipe

— 6"	— 4"	— 3"
— 2"	— 1 1/2"	

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MAP LEGEND

Township Boundary

Existing Burt SA Pipe

Other SA Existing Pipe

Yes

No

Standard/Seasonal Type 2

PT

HC1

Other

Upgrade Existing Pipe

Potential User-911 data

Potential Census User-

* Burt Rural Signups as of 3-28-2023

Signup Pipe

6"

4"

3"

2"

1 1/2"

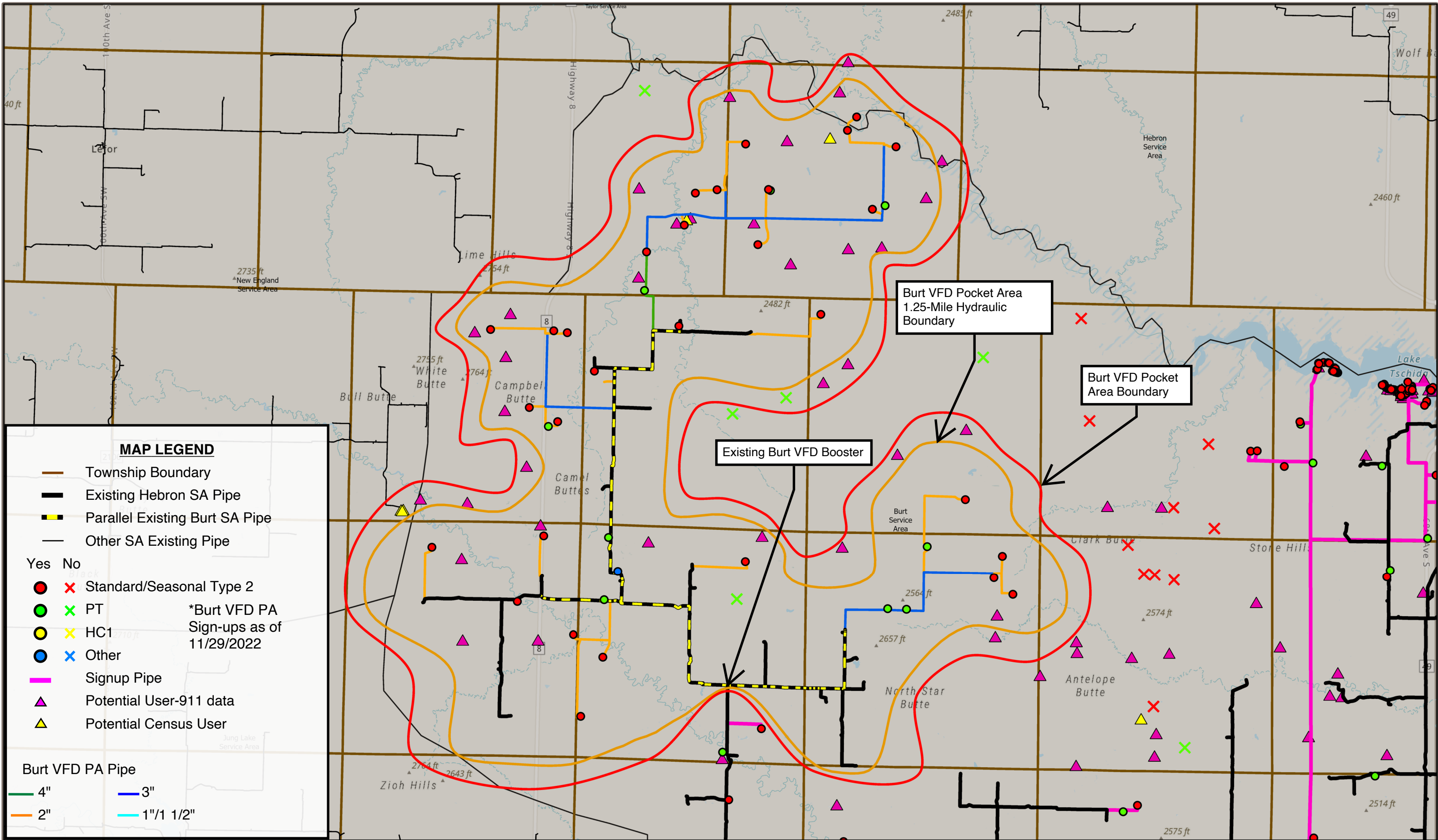
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SOUTHWEST PIPELINE PROJECT
BURT RURAL SERVICE AREA - 1.25 MILE DESIGN
April 2023



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NORTH
Dakota
Be Legendary.

This program is a partnership of the
Water Resources & Water Commission



SOUTHWEST PIPELINE PROJECT
BURT VFD POCKET AREA - 1.25 MILE DESIGN
April 2023

Bartlett & West

AECOM

HEBRON RURAL PRELIMINARY DESIGN SUMMARY- 1.25 MILE DESIGN				
FACILITY	HEBRON RURAL EXPANSION	HEBRON RURAL PARALLEL PIPE AND BOOSTERS	CURLEW BUTTES POCKET AREA	SUBTOTAL
Total Miles of Pipe	85.82	13.38	59.86	159.06
DESCRIPTION	4.08 mi 1"-1½" PVC 37.11 mi 2"-3" PVC 13.56 mi 4"-6" PVC 31.08 mi 8"-10" PVC	12.19 mi 2"-3" PVC 1.19 mi 10" PVC New Underground VFD Booster 15 hp	0.75 mi 1½" PVC 38.99 mi 2"-3" PVC 20.11 mi 4"-6" PVC New Underground VFD Booster 7.5 hp	
TOTAL ESTIMATED PROJECT COSTS	\$23,855,404	\$2,529,025	\$10,996,892	\$37,381,321
Unsigned Potential Users	201		23	224
Standard Sign-Ups	214		31	245
Pasture Tap Sign-Ups	9		12	21
HC 1	4		0	4
HC 2				0
HC 3				0
Standard to HC1				0
Total Number of Sign-Up Customers	227		43	270
Signup User ESU's with Pasture Tap	223.5		37	260.5
Sign-Up Percentage without Pasture Taps	52.0%		57.4%	52.6%
Sign-Up Percentage with Pasture Taps	53.0%		65.2%	54.7%
Subsequent Users	54 STD, 33 PT, 2 HC1, 1 HC2, 1 HC3, 2 Sea.		NONE	
Number of Subsequent Users	93			93
Subsequent Users ESU	77.25			77.25
Sign-Up + Subsequent User Percentage w/ Pasture Tap	61.4%		65.2%	61.84%
Existing Users (w/o Subsequent Users)	95 STD, 15 PT, 7 HC1, 3 HC2, 1 HC3		NONE	
Number of Existing Users	121			121
Existing User ESU's	117.50			117.50
Sign-Up + Existing + Subsequent User Percentage w/ Pasture Tap	68.7%		65.2%	68.4%
TOTAL PROJECT COST/ESU W/ PT	\$118,000		\$297,000	\$143,000
PROJECT COST/ESU (1) Sign-Up Users w/ PT	\$107,000		\$285,000	\$134,000
PROJECT COST/ESU (1) Sign-Up + Subsequent Users w/ PT	\$79,000		\$285,000	\$103,000

(1) Cost per ESU does not include the costs for booster pump stations, tank, and parallel pipelines.
 *The PVC pricing is based on November/December 2022 bid installation prices.
 **Price Estimates do not account for future inflation beyond the date of the estimates.
 ***Price Estimates of Booster Station Upgrades are estimated to be 50% of cost to replace an entire vault.

BURT RURAL PRELIMINARY DESIGN SUMMARY- 1.25 MILE DESIGN						
FACILITY	BURT RURAL EXPANSION	NEW BURT ELEVATED TANK	BURT RURAL PARALLEL PIPE AND BOOSTERS	BURT VFD POCKET AREA EXPANSION	BURT VFD POCKET AREA PARALLEL PIPE AND BOOSTERS	SUBTOTAL
Total Miles of Pipe	62.60		73.72	47.66	19.69	203.67
DESCRIPTION	3.14 mi 1"-1½" PVC 36.30 mi 2"-3" PVC 23.15 mi 4"-6" PVC	400,000 gal Elevated Tank	62.45 mi 2"-3" PVC 11.26 mi 4"-6" PVC New Underground VFD Booster 2 hp New Underground VFD Booster 2 hp New Underground VFD Booster 2 hp New Underground VFD Booster 3 hp New Underground Mainline Booster 30 hp Upgrade Existing PLC VFD Booster 5 hp Upgrade Existing Coffin Buttes VFD Booster 20 hp	0.41 mi 1½" PVC 45.05 mi 2"-3" PVC 2.20 mi 4" PVC	6.59 mi 2"-3" PVC 13.10 mi 4" PVC Upgrade Existing Burt VFD Booster to 5 hp	
TOTAL ESTIMATED PROJECT COSTS	\$12,950,920	\$3,017,300	\$13,614,134	\$6,498,252	\$3,135,471	\$39,216,077
Unsigned Potential Users	243			25		268
Standard Sign-Ups	147			30		177
Pasture Tap Sign-Ups	47			9		56
Signup User High Consumption 1				0		0
Signup User High Consumption 2						0
Signup User High Consumption 3	1					1
Standard to High Consumption 1 User				1		1
Total Number of Sign-Up Customers	195			40		235
Signup User ESU's with Pasture Tap	172.25			34.75		207
Sign-Up Percentage without Pasture Taps	37.9%			54.5%		40.0%
Sign-Up Percentage with Pasture Taps	44.5%			60.9%		46.7%
Subsequent Users	37 STD, 31 PT, 1 HC1			1 STD, 3 PT		
Number of Subsequent Users	69			3		72
Subsequent Users ESU	53.75			2.5		56.25
Sign-Up + Subsequent User Percentage w/ Pasture Tap	52.0%			62.7%		53.39%
Existing Users (w/o Subsequent Users)	152 STD, 24 PT, 23 HC1, 1 HC2, 1 HC3			18 STD, 1 PT, 2 HC1		
Number of Existing Users	201			21		222
Existing User ESU's	196			21		217
Sign-Up + Existing + Subsequent User Percentage w/ Pasture Tap	65.7%			71.6%		66.4%
TOTAL PROJECT COST/ESU W/ PT	\$172,000			\$277,000		\$189,000.00
PROJECT COST/ESU (1) Sign-Up Users w/ PT	\$75,000			\$187,000		\$94,000.00
PROJECT COST/ESU (1) Sign-Up + Subsequent Users w/ PT	\$57,000			\$174,000		\$74,000.00

[1] Cost per ESU does not include the costs for booster pump stations, tank, and parallel pipelines.
 *The PVC pricing is based on November/December 2022 bid installation prices.
 **Price Estimates do not account for future inflation beyond the date of the estimates.
 ***Price Estimates of Booster Station Upgrades are estimated to be 50% of cost to replace an entire vault.

BURT RURAL PRELIMINARY DESIGN SUMMARY- 1.25 MILE DESIGN			
FACILITY	BURT RURAL EXPANSION (COMBINED)	BURT RURAL	SOUTH LAKE TSCHIDA WITH SIGNUPS SERVED FROM 6" PIPELINE TO TSCHIDA
Total Miles of Pipe	62.60	33.05	29.55
DESCRIPTION	3.14 mi 1"-1½" PVC 36.30 mi 2"-3"PVC 23.15 mi 4"-6" PVC	1.66 mi 1"-1½" PVC 31.39 mi 2"-3"PVC	1.48 mi 1"-1½" PVC 4.92 mi 2"-3"PVC 23.15 mi 4"-6" PVC
TOTAL ESTIMATED PROJECT COSTS	\$12,950,920	\$5,266,310	\$7,685,910
Unsigned Potential Users	243	215	28
Standard Sign-Ups Served	147	63	84
Pasture Tap Sign-Ups Served	47	44	3
Signup User High Consumption 1			
Signup User High Consumption 2			
Signup User High Consumption 3	1	1	
Standard to High Consumption 1 User			
Total Number of Sign-Up Customers Served	195	108	87
Signup User ESU's with Pasture Tap	172.25	86.75	85.5
Standard Sign-Ups Not Served	47	47	
Pasture Tap Sign-Ups Not Served	54	54	
Sign-Up Percentage without Pasture Taps	37.9%	22.9%	75.0%
Sign-Up Percentage with Pasture Taps	44.5%	33.4%	75.7%
Subsequent Users	37 STD, 31 PT, 1 HC1	37 STD, 31 PT, 1 HC1	N/A
Number of Subsequent Users	69	69	N/A
Subsequent Users ESU	53.75	53.75	N/A
Sign-Up + Subsequent User Percentage w/ Pasture Tap	52.0%	45.0%	75.7%
Existing Users (w/o Subsequent Users)	152 STD, 24 PT, 23 HC1, 1 HC2, 1 HC3	152 STD, 24 PT, 23 HC1, 1 HC2, 1 HC3	N/A
Number of Existing Users	201	201	N/A
Existing User ESU's	196	196	N/A
Sign-Up + Existing + Subsequent User Percentage w/ Pasture Tap	65.7%	63.7%	75.7%
TOTAL PROJECT COST/ESU W/ PT			
PROJECT COST/ESU (1) Sign-Up Users w/ PT	\$75,000	\$61,000	\$90,000
PROJECT COST/ESU (1) Sign-Up + Subsequent Users w/ PT	\$57,000	\$37,000	\$90,000
[1] Cost per ESU does not include the costs for booster pump stations, tank, and parallel pipelines. *The PVC pricing is based on November/December 2022 bid installation prices. ***Price Estimates do not account for future inflation beyond the date of the estimates. ***Price Estimates of Booster Station Upgrades are estimated to be 50% of cost to replace an entire vault. ****Burt SA sign-ups as of 3/2/2023.			

HEBRON RURAL PRELIMINARY DESIGN SUMMARY- 1.25 MILE DESIGN			
FACILITY	HEBRON RURAL EXPANSION (COMBINED)	HEBRON RURAL	NORTH LAKE TSCHIDA WITH SIGNUPS SERVED FROM 10" PIPELINE TO TSCHIDA
Total Miles of Pipe	85.82	18.3	67.52
DESCRIPTION	4.08 mi 1"-1½" PVC 37.11 mi 2"-3" PVC 13.56 mi 4"-6" PVC 31.08 mi 8"-10" PVC	0.30 mi 1"-1½" PVC 18.0 mi 2"-3" PVC	3.78 mi 1"-1½" PVC 19.11 mi 2"-3" PVC 13.56 mi 4"-6" PVC 31.08 mi 8"-10" PVC
TOTAL ESTIMATED PROJECT COSTS	\$23,855,404	\$2,858,060	\$20,999,744
Unsigned Potential Users	201	68	133
Standard Sign-Ups Served	214	26	188
Pasture Tap Sign-Ups Served	9	6	3
HC 1	4	2	2
HC 2			
HC 3			
Standard to HC1			
Total Number of Sign-Up Customers Served	227	34	193
Signup User ESU's with Pasture Tap	223.5	31.5	192
Standard Sign-Ups Not Served	11	11	
Pasture Tap Sign-Ups Not Served	16	16	
Sign-Up Percentage without Pasture Taps	52.0%	29.2%	58.8%
Sign-Up Percentage with Pasture Taps	53.0%	33.3%	59.2%
Subsequent Users	54 STD, 33 PT, 2 HC1, 1 HC2, 1 HC3, 2 Sea.	54 STD, 33 PT, 2 HC1, 1 HC2, 1 HC3, 2 Sea.	N/A
Number of Subsequent Users	93	93	N/A
Subsequent Users ESU	77.25	77.25	N/A
Sign-Up + Subsequent User Percentage w/ Pasture Tap	61.4%	65.1%	59.2%
Existing Users (w/o Subsequent Users)	95 STD, 15 PT, 7 HC1, 3 HC2, 1 HC3	95 STD, 15 PT, 7 HC1, 3 HC2, 1 HC3	N/A
Number of Existing Users	121	121	N/A
Existing User ESU's	117.50	117.50	N/A
Sign-Up + Existing + Subsequent User Percentage w/ Pasture Tap	68.7%	78.5%	59.2%
TOTAL PROJECT COST/ESU W/ PT			
PROJECT COST/ESU (1) Sign-Up Users w/ PT	\$107,000	\$91,000	\$109,000
PROJECT COST/ESU (1) Sign-Up + Subsequent Users w/ PT	\$79,000	\$91,000	\$109,000
(1) Cost per ESU does not include the costs for booster pump stations, tank, and parallel pipelines. *The PVC pricing is based on November/December 2022 bid installation prices. ***Price Estimates do not account for future inflation beyond the date of the estimates. ***Price Estimates of Booster Station Upgrades are estimated to be 50% of cost to replace an entire vault. ****Hebron SA sign-ups as of 12/29/2023.			

Our Vision: People and Business Succeeding with Quality Water **Our Mission:** Quality Water for Southwest North Dakota

August 23, 2023

Andrea Travnicek, Ph.D., Director
Department of Water Resources
1200 Memorial Highway
Bismarck, ND 58504-5262

Dear Andrea,

Southwest Water Authority (SWA) is requesting the Department of Water Resources (DWR) and the State Water Commission (SWC) consider and support the proposed adjustments to the Southwest Pipeline Project (SWPP) Feasibility Criteria.

The SWPP feasibility criteria was developed for rural distribution contracts. The criteria were established in 1992 and adopted by SWA and the SWC in 1993. The criteria were revisited in 2000 from which time has remained the same. The constraints in the application of the current feasibility criteria have highlighted the differences between new rural distribution projects and the expansion of under-served areas. Preliminary design cost estimates have underscored the issues with the existing feasibility criteria.

A Feasibility Criteria Subcommittee was appointed by the SWA Board of Directors and has been meeting since December 14, 2022. The subcommittee has discussed the cost criteria history, the equivalent service unit (ESU), signup percentages, design capacity, people signing up during construction and many other issues. DWR, at the June 2, 2023 meeting with the subcommittee, indicated it would consider adjustments to the criteria based on a request from SWA if the changes were justified. At the August 7, 2023, SWA Board meeting, the SWA Board of Directors unanimously approved the following modifications to the feasibility criteria.

- 1. Increase the maximum cost limit per equivalent service unit (ESU) to \$80,000 at a 50% signup rate with a tiered increase to \$160,000 at a 100% signup rate, continue to index the maximum cost limit per ESU and the base monthly minimum by the Consumer Price Index (CPI), increase the standard customer capital repayment rate by a flat \$16 per month prorated for pasture tap and high consumption customers.**

The maximum cost limit per ESU was set in the original criteria at \$25,000 and adjusted by the Consumer Price Index (CPI). Today that limit is approximately \$53,200. Since 2008, the installed price for PVC piping has exceeded the CPI increases¹. Additionally, inflation has it has exceeded the Engineering News Report/Construction Cost Index (ENR/CCI)^{2,3} which is approximately \$65,800. Historically, the feasibility criteria has provided for installation of an average length of over 2 miles of rural pipeline, while the lowest has been 1.25 miles. Based on current PVC pipe material and installation costs, the current criteria allow for less than 0.5 miles of pipeline to be installed. Increasing the ESU cost to \$80,000 would allow almost three quarters of a mile. Customers and locations deemed feasible under the existing criteria have already been constructed and connected. Those that remain are farther

from existing service lines and more expensive. The SWPP repayment model is unique. The model returns capital repayment, based on southwest North Dakota's ability to pay, to the Resources Trust Fund (RTF) into perpetuity.

To offset an increase to \$80,000 per ESU, the SWA Board of Directors approved increasing new rural construction customers' capital repayment rate by a flat \$16 per month for an unspecified time, not to exceed 25 years. This increase to the minimum is recommended as a flat rate that will remain the same over time. At the increased rate of \$16 per month, it is estimated that 25% of each \$80,000 ESU would return to the RTF by capital repayment in approximately 25 years⁵, this compares favorably to systems funded by the SWC Cost-Share program.

Utilizing a signup percentage based tiered maximum cost per ESU model⁵, \$160,000 per ESU at 100% sign up rate would allow construction of almost 1.5 miles. Varying the allowable cost per ESU based on signup percentage provides a mechanism for funding the areas with the most interest in receiving water from the SWPP. A higher signup percentage proves a higher need.

2. Include new customers, pasture taps, and subsequent customers in the calculation for signup percentage, and do not include subsequent customers in the calculation for maximum cost per ESU.

Inclusion of new customers and pasture taps remain unchanged from the current criteria. Subsequent customers have connected to the system at their own cost demonstrating they would sign up now had they not had the opportunity to receive water earlier. Subsequent customers have contributed their own funds to connecting to the SWPP when capacity was available and will not be counted in the maximum cost per ESU calculation.

The SWA Board of Directors approved clarification of the interpretation of the current feasibility criteria which states transmission and storage facilities will not be included in the determination of cost for a single ESU. Booster stations have been excluded through precedents.

3. The 8-10" main transmission line (MTL) and a portion of the 6" MTL designed for the Burt, Hebron Service Area are to be excluded from the maximum cost per ESU criteria and to consider exclusion of parallels on a case-by-case basis.

The SWA Board of Directors proposed this clarification due to the unprecedented nature of expanding into an area that has existing infrastructure. The 8-10" main transmission line (MTL) and a portion of the 6" MTL designed for the Burt, Hebron Service Area are needed to serve high density end users and pocket areas. The proposed MTL will not serve a bulk contract, rather each end user would be an individual rural customer of the SWPP and pay a monthly minimum.

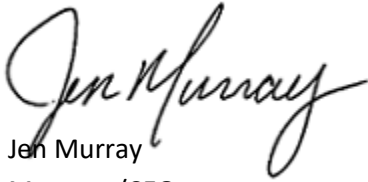
Parallel piping is planned to be evaluated on a case-by-case basis and considerations will include existing pipeline size and the number of supplied downstream customers. In an area where there is no existing infrastructure, pipe can be upsized during design. When expanding in an area with existing infrastructure, parallel piping is needed to increase capacity.

There are currently more than 680 signups financially committed to connecting to the SWPP in the Burt, Hebron Service Area. It has been SWPP experience to gain additional customers once a final design has been confirmed and construction begins. Availability of quality water in their current locations ensures that rural farmsteads and

communities, industry and recreation continue to thrive, enhancing the quality of life for these North Dakota residents. A positive response to these adjustments and clarifications would be greatly appreciated.

Please let me know if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Jen Murray". The signature is fluid and cursive, with the first name "Jen" being more prominent than the last name "Murray".

Jen Murray

Manager/CEO

Southwest Water Authority

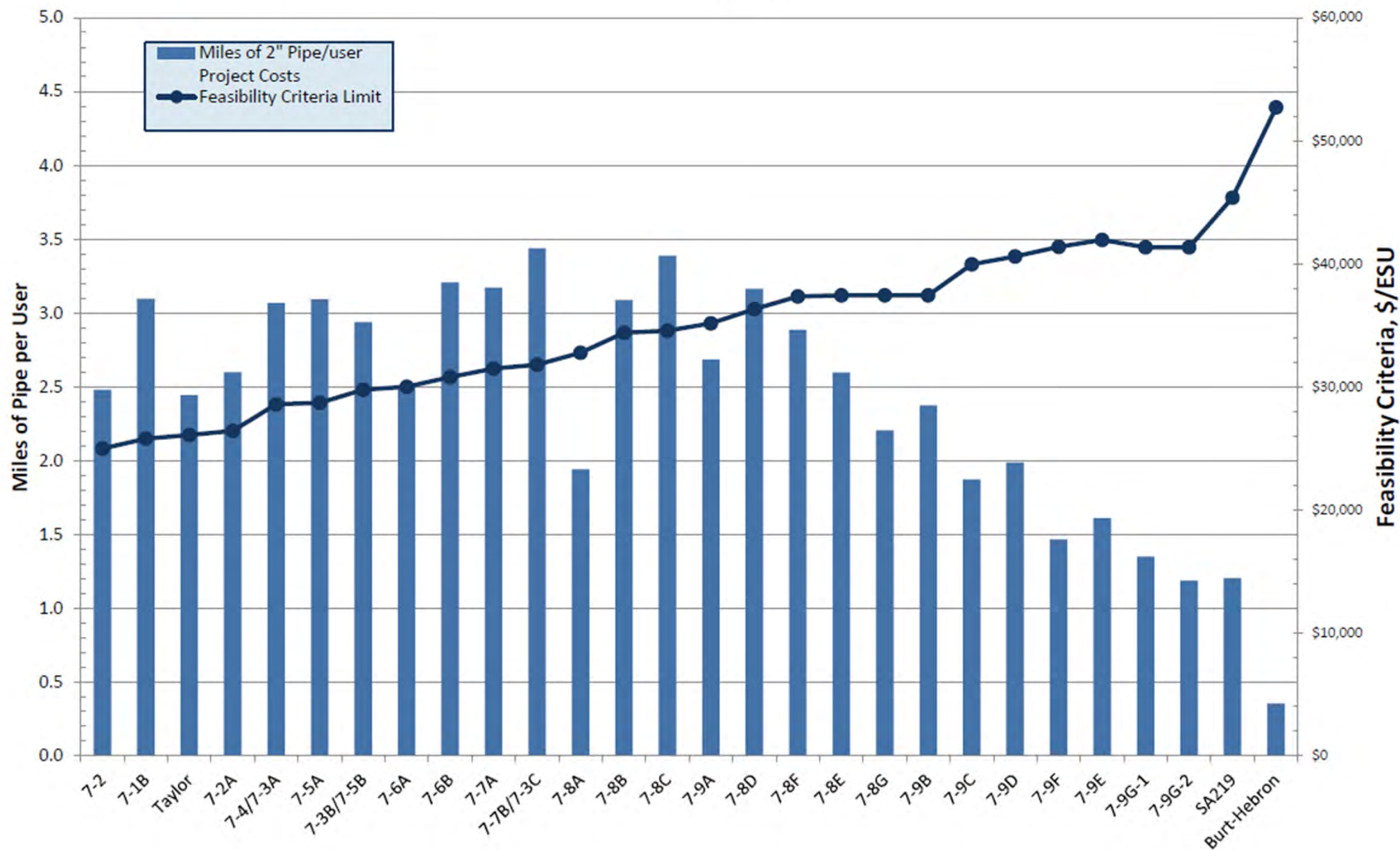
Enclosures

CC: Sindhu S. Pillai-Grinolds, P.E., Water Development Director, Department of Water Resources

Southwest Pipeline Project

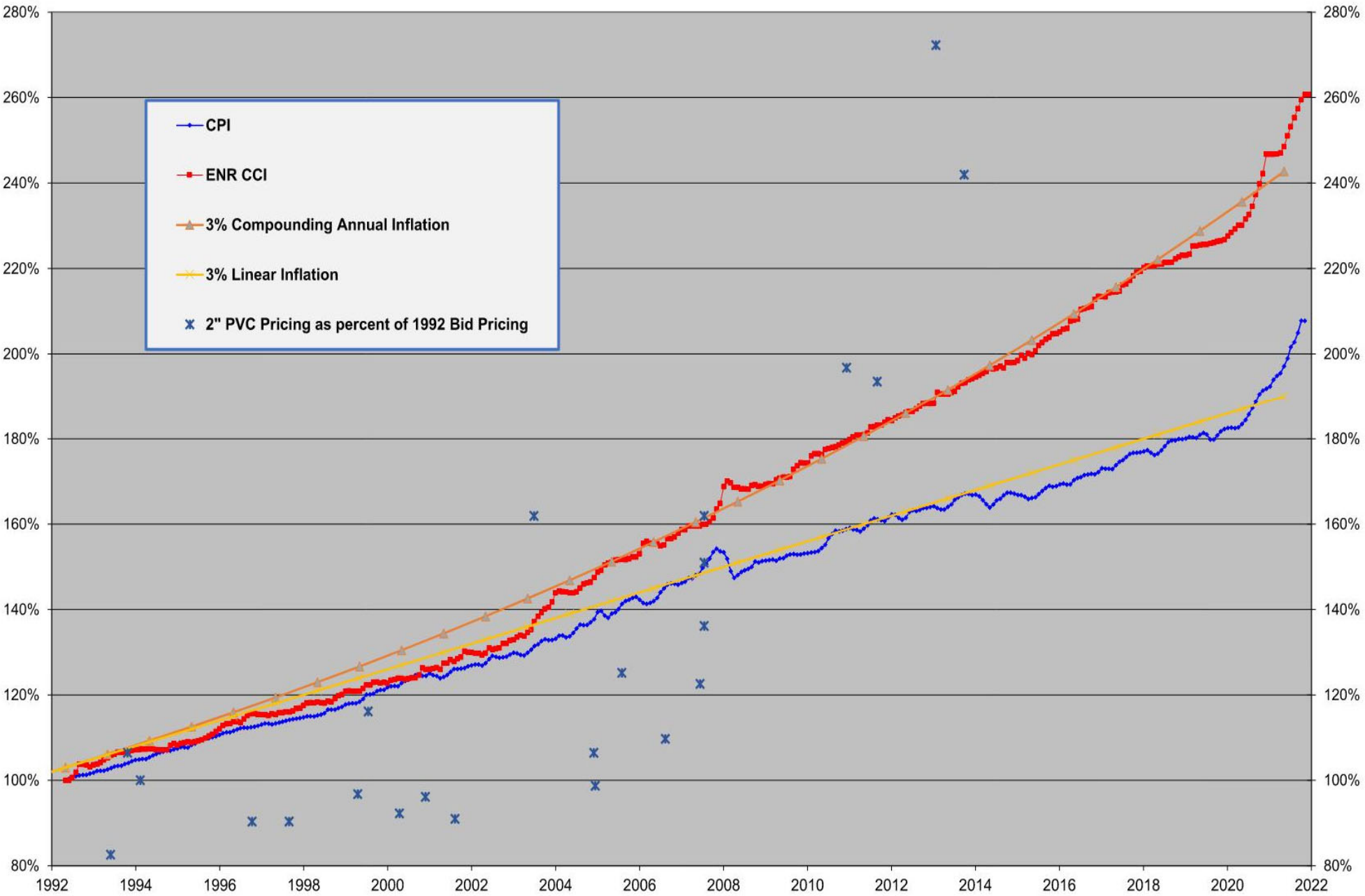
Feasible Miles of Pipeline Per User

based on 20' 1 1/2" pipe, 2" valve and box, meter assembly, curb stop, 1 Type 4 road crossing
remainder divided by 2" pipe cost

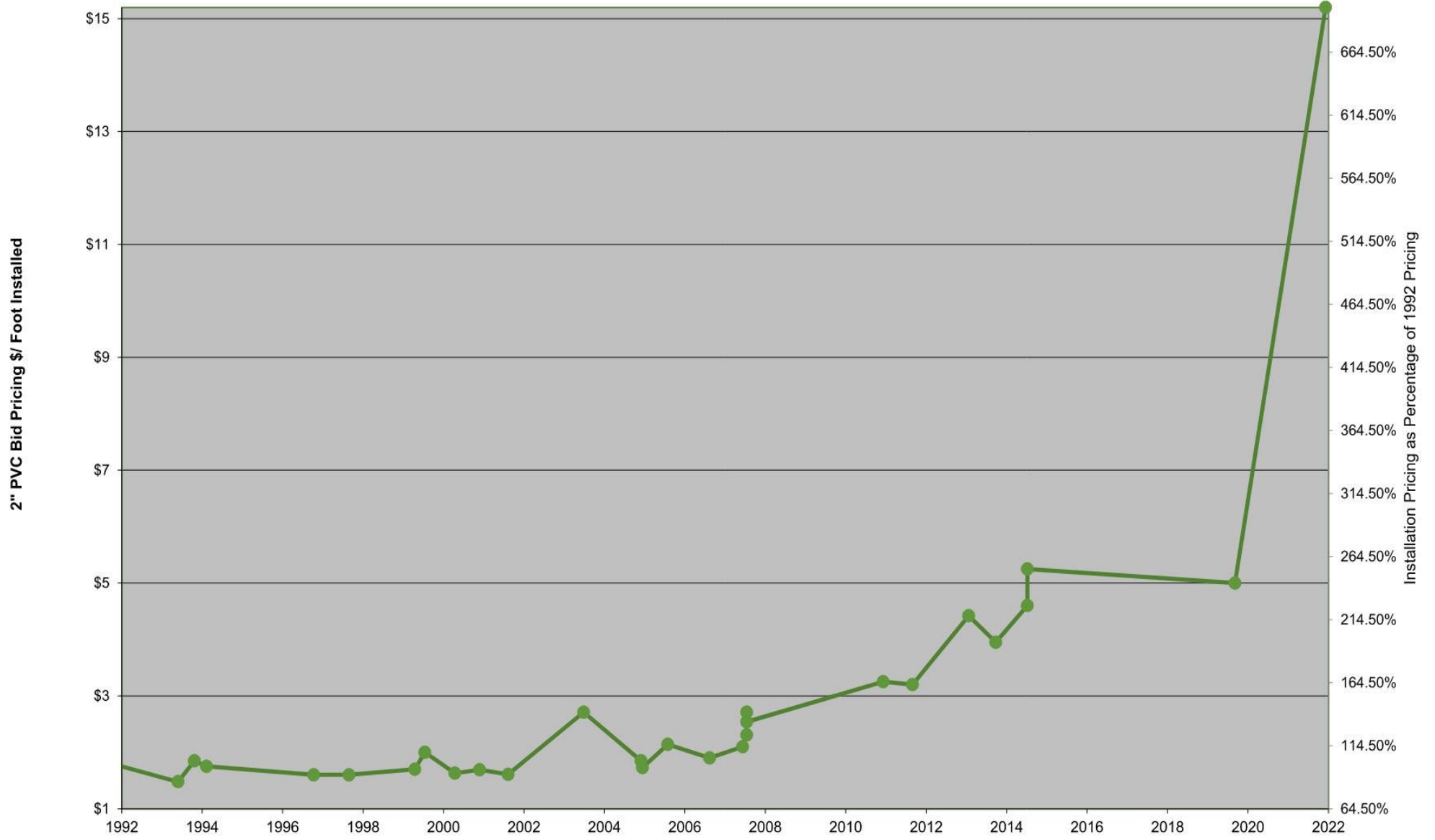


CPI vs ENR CCI
Jan 1993 to present
1992=100

index divided by 10/1/92 value



2" Class 160 PVC Installation Price



Capital Repayment of a Standard Service : Burt Hebron Service Area - Assumption 2.5% CPI increase to Cap Rep annually
Additional \$16 charge per month per Standard ESU (not indexed)

	Standard Customer Capital Repayment	% Returned to RTF if Feasibility @ \$53,200	% Returned to RTF if Feasibility @ CPI \$65,800	% Returned to RTF if Feasibility @ CCI \$80,000	% Returned to RTF if Feasibility @ \$100,000	% Returned to RTF If Feasibility @ \$125,000	% Returned to RTF If Feasibility @ \$140,000	% Returned to RTF If Feasibility @ \$160,000	Sign Up %	Feasibility Cost
1 year	\$ 550.19								50%	\$ 80,000
5 years	\$ 2,887.87	5.4%	4.4%	3.6%	2.9%	2.3%	2.1%	1.8%	55%	\$ 88,000
10 years	\$ 6,144.72	11.6%	9.3%	7.7%	6.1%	4.9%	4.4%	3.8%	60%	\$ 96,000
15 years	\$ 9,819.04	18.5%	14.9%	12.3%	9.8%	7.9%	7.0%	6.1%	65%	\$ 104,000
20 years	\$ 13,965.68	26.3%	21.2%	17.5%	14.0%	11.2%	10.0%	8.7%	70%	\$ 112,000
25 years	\$ 17,664.50	33.2%	26.8%	22.1%	17.7%	14.1%	12.6%	11.0%	75%	\$ 120,000
30 years	\$ 23,932.34	45.0%	36.4%	29.9%	23.9%	19.1%	17.1%	15.0%	80%	\$ 128,000
35 years	\$ 29,902.04	56.2%	45.4%	37.4%	29.9%	23.9%	21.4%	18.7%	85%	\$ 136,000
40 years	\$ 36,645.70	68.9%	55.7%	45.8%	36.6%	29.3%	26.2%	22.9%	90%	\$ 144,000
									95%	\$ 152,000
									100%	\$ 160,000





1081461 - ND Highway 18 Project

Application Details

Funding Opportunity:	22356-State Fiscal Year 2023-2024 Infrastructure Request	Initial Submit Date:	Oct 17, 2023 2:16 PM
Funding Opportunity Due Date:	Jun 30, 2024 3:00 PM	Initially Submitted By:	Jacob Huwe
Program Area:	Funding for Infrastructure in ND - FIND	Last Submit Date:	
Status:	Under Review	Last Submitted By:	
Stage:	Final Application		

Contact Information

Primary Contact Information

Active User*:	Yes
Type:	External User
Name:	Salutation Jacob First Name
Middle Name	Huwe
	Last Name
Title:	
Email*:	jacob.huwe@hdrinc.com
Address*:	213 LaBree Ave N Suite 203

Organization Information

Status*:	Approved
Name*:	City of Nече
Organization Type*:	Municipal Government
Tax Id:	
Organization Website:	
Address*:	353 Madison Avenue

			Neché	North Dakota
			City	State/Province
	Thief River Falls	Minnesota		
	City	State/Province	58265-_____	
56701			Postal Code/Zip	
Postal Code/Zip			Phone*:	701-238-3502 Ext.
Phone*:	218-416-2570 Ext.			###-###-####
	Phone		Fax:	###-###-####
	###-###-####		Benefactor:	
Fax:	###-###-####		Vendor ID:	
Comments:			PeopleSoft	
			Supplier ID:	
			Comments:	
			Location	
			Code:	
			SAM.gov	
			Entity ID:	
			SAM.gov	
			Name:	
			SAM.gov	
			Entity ID	
			Expiration	
			Date:	
			State Issued	
			ID:	
			Category #:	
			Year Begin:	
			Year Closed:	
			NCES#:	
			Restricted	0.00%
			Indirect Cost	
			Rate:	

Unrestricted 0.00%
Indirect Cost
Rate:

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: City of Nече Levee Certification Project

Sponsor(s)*: City of Nече

County*: Pembina

City*: Nече

Description of Request*: Updated (previously submitted)

If Study, What Type: Floodplain Mgmt.

If Project/Program, What Type: Flood Control

Jurisdictions/Stakeholders Involved*:

Department of Transportation

Describe the Problem*:

The City of Nече is working towards building a certified levee protection system under 44 CFR 65.10 of the Code of Federal Regulations which will provide a 1-percent-annual-chance flood protection to the City's interior properties.

State Highway 18 lies on the west edge of Nече, and currently has 8 culverts which will allow water into the City during overland flooding. Other culverts are causing erosion issues and the City's levee has needed repairs due to these culverts' current location.

Provide Project Details, Objectives and Solutions to Address Problem*:

Through a partnership with the North Dakota Department of Transportation, ten existing culverts under North Dakota Highway 18 are going to be removed and replaced by three 12-feet wide by 4-feet high precast box culverts. An existing entrance to the city off of ND 18 (7Th Street) will be re-constructed so that it provides a safer intersection at the junction of ND 18 and 108th Street NE.

The DOT has a desire to bid another project at the same time which will include sliver widening and a mill and overlay of ND 18 at the same location.

In order for the City's levee certification project to proceed, the City has been coordinating with NDDOT to resolve the issue with these culverts, and they are still working on an official agreement. DOT has agreed to fund the construction portion of removing or plugging existing culverts, installing new box culverts, and re-locating the 7th street entrance. Therefore, the City is requesting help with the engineering design and plans for construction.

For this project,

Choose City, County, Water District or Other*: City

What is the Current Estimated Population?* 342

For this project,

What is the Benefited Population?* 342

Have Assessment Districts Been Formed?* No

Have Land or Easements Been Acquired?* No

Are There Any Properties with Wells, Drain Fields, or Holding Tanks Within the Project Area That Will Benefit from the Project?* No

Are There Any Road Improvements Included as Part of the Project?* Yes

If Yes, Describe the Condition and Last Improvements Made to Any Underground Infrastructure.:

NDDOT is proposing to complete a sliver widening of highway 18 in the same area. 7th Street will be re-aligned to intersect highway 18 and the township road approaching from the west (108th St NE). Highway 18 is in poor condition, so a mill and overlay is planned and needed, as well as the sliver widening for safety.

7th Street approaches highway 18 at a 45-degree angle, creating safety concerns.

**Have You Applied For Any
Federal Permits?*** No

**If Yes or Ongoing, Please
Explain
(include type/number):**

**Have You Applied for any
State Permits?*** No

**If Yes or Ongoing, Please
Explain
(include type/number):**

**Have You Applied for any
Local Permits?*** No

**If Yes or Ongoing, Please
Explain
(include type/number):**

**Do You Expect Any
Obstacles to Implementation
(i.e. Problems with Land
Acquisition, Permits,
Funding, Local Opposition,
Environmental Concerns,
etc.)?*** No

**Have You Received, or Do
You Anticipate Receiving
Federal Funding?** No
(Example: Hazard Mitigation
Grant Program)
*:

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: Not Applicable

Design Completion*: May 2024

Bid*: July 2024

Construction Start*: May 2025

Construction Completion*: July 2025

Explain Additional Timeline

Issues*:

Need to be ready to construct at the same time the DOT's sliver widening occurs

Consulting Engineer*: Nate Dalager

**Engineer Telephone
Number*:** 218-681-6100

Engineer Email*: nate.dalager@hdrinc.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Stuart Symington 10/17/2023
First Name Last Name Date

Address*: 514 5th Ave
Address Line 1
PO Box 111
Address Line 2
Neché North Dakota 58265-4105
City State Zip Code

Telephone Number*: 701-238-3502

Sponsor Email*: stu.sym@gmail.com

**I Certify That, to the Best of
My Knowledge, the Provided
Information is True and
Accurate*:** Yes

Authorized Individual*: Stuart Symington 10/17/2023
First Name Last Name Date

Title/Position/Authority*: Mayor

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If Yes, Add Boundary to Project Specific Map.*: No

[CLICK HERE to see examples.](#)

Project Specific Map Neche Location Map.pdf
Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community
*:

Are You Seeking Department of Water Resources Cost-Share?* Yes

Are You Seeking Cost-Share for a Main Street Initiative Related Project?: No

Attach Completed Comprehensive Plan:

[CLICK HERE for SFN 61801 Delineation of Costs Instructions and Current Version.](#)

Delineation of Costs SFN 61801: Neche_sfn_61801_delineation_of_cost.xlsx

Type of Request: Preconstruction

Water Supply Projects?: No

Rural Flood Control?: No

Drain Reconstructions?: No

Flood Recovery Property Acquisition?: No

Community Flood Control, No
 Rural Flood Control, Bank
 Stabilization, or Snag & Clear
 Project With Total Cost of
 \$200,000 or More?:

Sovereign Land Permit, if
 Required:

DWR Construction Permit, if
 Required:

Conditional Letter of Map
 Revision (CLOMR), if
 Required:

Feasibility/Engineering Study No
 for the Proposed Project:

Photos of Problem/Issue:

Other Applicable Yes
 Document(s):

Other Applicable Document: 7th St Culvert Concept Map.pdf

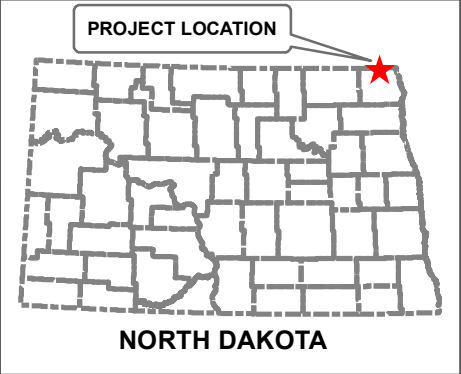
Other Applicable Document: Neche Flood Protection Scope and Budget - Signed NTP.pdf



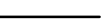







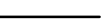







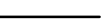






Other Applicable Document:

Sources

Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

Source	If Other, Specify Funding Source	State			Total Cost	Type	Term	Interest Rate
		State Fiscal Year 1 July to June	Fiscal Year 2 July to June	Beyond Current Biennium				
Other	Local Cost	\$65,870.00	\$0.00	\$0.00	\$65,870.00		0.00	0.00
Department of Water Resources Cost Share Pre-Construction		\$98,700.00	\$0.00	\$0.00	\$98,700.00		0.00	0.00
		\$164,570.00	\$0.00	\$0.00	\$164,570.00			



<div> <div><div>0</div><div>500</div><div>1,000</div></div><div>FEET</div></div>	<table><tr><td>LEGEND</td><td> Pump Stations</td><td> Local Roads</td></tr><tr><td> Roadway Entrances</td><td> Gravity Culvert</td><td> State Roads</td></tr><tr><td> Proposed Levee Alignment</td><td> Underground Telephone</td><td> County Line</td></tr></table> <div>Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community</div>	LEGEND	 Pump Stations	 Local Roads	 Roadway Entrances	 Gravity Culvert	 State Roads	 Proposed Levee Alignment	 Underground Telephone	 County Line	<div>CITY OF NECHE LEVEE CERTIFICATION PROJECT PROPOSED PROJECT AREA</div> <div><div></div><div>CS APPLICATION</div></div>
LEGEND	 Pump Stations	 Local Roads									
 Roadway Entrances	 Gravity Culvert	 State Roads									
 Proposed Levee Alignment	 Underground Telephone	 County Line									



REMOVE
24" X 107' RC PIPE
4 RC FLARED END SECTION
[NOT SHOWN]

REMOVE
36" X 126' RC PIPE
6 RC FLARED END SECTION

REMOVE
36" X 122' RC PIPE
6 RC FLARED END SECTION

Existing Flow Path

REMOVE
RAISE ROAD TO
PREVENT OVERTOPPING

INSTALL SALVAGED RC PIPES

CONSTRUCT
NEW 7TH ST ENTRANCE
SALVAGE ROADBED MATERIAL
FROM 7TH ST REMOVAL

Proposed Flow Path

INSTALL
NEW STRUCTURE
REMOVE
30" X 84' RC PIPE
4 RC FLARED END SECTION

REMOVE
36" X 60' CS PIPE
15' X 5' RC BOX
6.5' X 3.5' RC BOX

CLEAN
EXISTING COULEE

Legend

- Proposed Structures
- New 7th St
- Existing Flow Path
- Proposed Flow Path
- Existing Culvert
- Existing Levee

Neché, ND



0 70 140 280 420 560 Feet

Project Manager
N. Dalager

Drawn
J. Huwe

CONCEPT MAP

4/2/2019



DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (7/2021)

DWR Date Received : Month Day, Year

Project: City of Neche Levee Certification Project
Sponsor: City of Neche
Contact: Stuart Symington, Mayor
Phone: 701-238-3502
Engineer: Nate Dalager, HDR
Phone: 218-681-6100

Total Cost :	\$ 164,570	Date:	August 25, 2023
Ineligible Cost :	\$ -		
Eligible Cost :	\$ 164,570	Cost-Share \$	
Local Cost :	\$ 65,870		\$ 98,700

Project Type:	Cost-share %
FEMA Flood Levee Accreditation	60%

	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Construction Costs							
1	#DIV/0!	0		-	\$ -	60%	\$ -
2	#DIV/0!	0		-	\$ -	60%	\$ -
3	#DIV/0!	0		-	\$ -	60%	\$ -
4	#DIV/0!	0		-	\$ -	60%	\$ -
5	#DIV/0!	0		-	\$ -	60%	\$ -
6	#DIV/0!	0		-	\$ -	60%	\$ -
7	#DIV/0!	0		-	\$ -	60%	\$ -
8	#DIV/0!	0		-	\$ -	60%	\$ -
9	#DIV/0!	0		-	\$ -	60%	\$ -
10	#DIV/0!	0		-	\$ -	60%	\$ -
11	#DIV/0!	0		-	\$ -	60%	\$ -
12	#DIV/0!	0		-	\$ -	60%	\$ -
13	#DIV/0!	0		-	\$ -	60%	\$ -
14	#DIV/0!	0		-	\$ -	60%	\$ -
15	#DIV/0!	0		-	\$ -	60%	\$ -
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17	#DIV/0!	0		-	\$ -	60%	\$ -
18	#DIV/0!	0		-	\$ -	60%	\$ -
19	#DIV/0!	0		-	\$ -	60%	\$ -
20	#DIV/0!	0		-	\$ -	60%	\$ -
21	#DIV/0!	0		-	\$ -	60%	\$ -
22	#DIV/0!	0		-	\$ -	60%	\$ -
23	#DIV/0!	0		-	\$ -	60%	\$ -
24	#DIV/0!	0		-	\$ -	60%	\$ -
25	#DIV/0!	0		-	\$ -	60%	\$ -
26	#DIV/0!	0		-	\$ -	60%	\$ -
	Construction Sub-Total				\$ -	60%	\$ -
0.0%	Contingency				\$ -	60%	\$ -
0.0%	Construction Total				\$ -	60%	\$ -
Engineering Costs							
27	#DIV/0!	1	NA	164,570.00	\$ 164,570	60%	\$ 98,742
28	#DIV/0!	0	NA		\$ -	60%	\$ -
29	#DIV/0!	0	NA		\$ -	60%	\$ -
30	#DIV/0!	0	NA		\$ -	60%	\$ -
31	#DIV/0!	0		-	\$ -	60%	\$ -
32	#DIV/0!	0		-	\$ -	60%	\$ -
32	#DIV/0!	0		-	\$ -	60%	\$ -
33	#DIV/0!	0		-	\$ -	60%	\$ -
100.0%	Engineering Total				\$ 164,570	60%	\$ 98,742
Other Eligible Costs							
34	0.0%	1		-	\$ -	60%	\$ -
35	0.0%	1		-	\$ -	60%	\$ -
36	0.0%	1		-	\$ -	60%	\$ -
37	0.0%	1		-	\$ -	60%	\$ -
38	0.0%	1		-	\$ -	60%	\$ -
39	0.0%	1		-	\$ -	60%	\$ -
40	0.0%	1		-	\$ -	60%	\$ -
41	0.0%	1		-	\$ -	60%	\$ -
0.0%	Other Eligible Total				\$ -	60%	\$ -
In-eligible Costs							
42	0.0%	1		-	\$ -	0%	\$ -
43	0.0%	1		-	\$ -	0%	\$ -
44	0.0%	1		-	\$ -	0%	\$ -
45	0.0%	1		-	\$ -	0%	\$ -
46	0.0%	1		-	\$ -	0%	\$ -
47	0.0%	1		-	\$ -	0%	\$ -
48	0.0%	1		-	\$ -	0%	\$ -
49	0.0%	1		-	\$ -	0%	\$ -
0.0%	Other Ineligible Total				\$ -	0%	\$ -
100.0%	Total				\$ 164,570		
	Eligible Total				\$ 164,570	60%	\$ 98,742
Federal or State Funds That Supplant Costs							
	Eligible Cost Total				\$ 164,570	60%	\$ 98,742

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Highway 18 Scope of Services

The City of Niche is working towards building a certified levee protection system under 44 CFR 65.10 of the Code of Federal Regulations which will provide a 1-percent-annual-chance flood protection to the City's interior properties. Through a partnership with the North Dakota Department of Transportation, ten existing culverts under North Dakota Highway 18 (ND 18) are going to be removed and replaced by three 12-feet wide by 4-feet high precast box culverts. An existing entrance to the City off of ND 18 (7th Street) will be reconstructed so that it provides a safer intersection at the junction of ND 18 and 108th Street NE.

Task #1: Project Management and Coordination

This task consists of the overall management of the project, project communication, and coordination conferences/meetings.

- 1.1 Project Development and Staff Meetings.** Monitor and control the project budget, scope of work and schedule; manage the project goals and objectives; manage and coordinate resources including staff scheduling and invoicing.
- 1.2 Coordination with NDDOT.** Schedule, review, prepare, participate, and help conduct meetings and teleconferences.
- 1.3 QC/QA and Management Reviews.** QC/QA reviews are included in HDR's proposal. We have included time in this task for QC/QA review of subconsultant submittals.

Assumptions:

- Two coordination meetings with DOT held virtually.
- One public Meeting will be in Niche and attended by two HDR team members.

Deliverables:

- Ongoing project management services as required.
- Project schedule and schedule updates.
- Overall project documentation.
- Meeting notes for key meetings.

Task #2: Hydraulic Report

HDR has completed modeling for the proposed box culverts and associated project work for the 100-year Pembina River flooding event. DOT requires additional modeling of a 50-year event and an alternative that does not include additional project features that are not in this phase of work. A detailed model report must accompany the modelled scenarios with recommendations backed by results.

- 2.1 Detailed Hydraulic Modeling.** HDR will develop models for existing conditions, proposed Phase 1, and proposed Phase 2 conditions in HEC-RAS 2D for the 50- and 100-year Pembina River flood events. The existing 100-year model has been completed in a previous phase of work.

Assumptions:

- The existing 100-year conditions model has been reviewed, updated, and considered adequate by DOT hydraulics and will not be modified further.

- The 50-year hydrologic event will be based on approximate peak flows only. A detailed hydrologic study to determine runoff volumes, calibration, and validation is not included in this scope.
- Only one culvert size is required to be modeled by HDR in this analysis.

Deliverables:

- Hydraulic Report (Electronic only)
- Hydraulic models

Task #3: Permitting and Environmental Compliance

NDDOT intends to use federal funds to pay for construction of the proposed box culverts and 7th St Entry so a NEPA document will be required prior to bidding the proposed project. A Section 404 permit will be required from USACE.

- 3.1 Aquatic Resources Delineation & Report.** HDR completed field delineation and report in previous phase of work. A soils scientist was not present during the delineation, but NDDOT has completed similar work that overlaps this project area. Coordination with DOT is needed before finalizing this scope.
- 3.2 Section 7 (Endangered Species Act) Consultation.** HDR completed this in a previous phase of work.
- 3.3 Draft Documented Categorical Exclusion (DCE).** Includes cultural resources survey pre-meeting, Solicitation of Views letters, public meeting.
- 3.4 Final Documented Categorical Exclusion (DCE)**
- 3.5 Floodplain Permit.** The Pembina County Water Board has supported the City's efforts and will need to issue a permit. The downstream impacts of increased capacity need to be documented and included in this permit.
- 3.6 404 Permit Application.** HDR will assume all wetlands are jurisdictional and proceed with developing a mitigation plan to purchase credits for this proposed project, if necessary.
- 3.7 Wetland Mitigation Plan.** HDR will prepare a wetland mitigation plan to mitigate for unavoidable impacts to wetlands protected under EO 11990 and Section 404 of the Clean Water Act.

Assumptions:

- Wetland delineation already completed is sufficient for Phase 1 box culvert and 7th street relocation.
- Permit applications and reports shall include only the Phase 1 activities and not the full City Levee Protection System Upgrades.
- A nationwide 404 permit application will be submitted by HDR at the same time as the aquatic resources report.
- The following permits will not be required for this project:
 - Sovereign Lands
 - ND State Water Commission Drainage Permit
 - Individual Section 404 Permit
- No Conditional Letter of Map Revision will be included in this scope of work because impacts to the floodplain are not anticipated.
- No right-of-way tasks are scoped, and it is assumed wetland mitigation will not require additional right-of-way.
- City will mail SOV letters to residents.

Deliverables:

- Aquatic Resources Report (Electronic only)

- Floodplain Permit Application (Electronic only)
- 404 Permit Application (Electronic only)
- Wetland mitigation summary (included in 404 permit)
- SOV Letter (Electronic only)

Task #4: Final Precast Box Culvert Design

Preliminary design was completed by HDR in a previous scope of work. The size, type, and location has been approved by the Bridge Engineer pending final hydraulics.

- 4.1 Final Design.** HDR will develop 90% and PS&E plans and calculations and submit to the Bridge Engineer. The 90% calculations will include checked calculations from the NDDOT RCB computer program.
- 4.2 Final Plans and Specifications.** HDR will develop detailed design and plans for the triple line box culverts for Bridge ID 0018-240.573. The final plans will follow DOT standards and be combined with the new roadway plans for construction. An Engineer's Opinion of Probable Construction Cost (EOPCC) including the roadway construction is included with this task.

Assumptions:

- 30 sheets are estimated for the completed plans (together with the roadway plans).
- One round of review will take place with NDDOT and the City.

Deliverables:

- EOPCC. (Electronic only)
- 90% Plans and Calculations. (Electronic only)
- Final plans for construction. (Electronic only)

Task #5: Final Roadway Design

HDR will provide detailed design of the roadway, structure, and drainage features.

- 5.1 Roadway Design.** 7th street will be re-designed to intersect with Highway 18 in line with 108th St NE. It will enter the city at the same location.
- 5.2 Utility Coordination.** Produce plans detailing proposed utility relocations as necessary for the new 7th Street Entry. Some water utilities are anticipated to be impacted by the new roadway.
- 5.3 Final Plans.** HDR will produce plans for construction of the new roadway. These will be combined with the precast box culvert plans.

Assumptions:

- 30 sheets are estimated for the completed plans (together with the roadway plans).
- One round of review will take place with NDDOT and the City.
- Utility coordination is based upon on the utility companies which respond to the One-Call ticket for this project.

Deliverables:

- 90% Plans and Calculations. (Electronic only)
- Final plans for construction. (Electronic only)

Project Staffing

HDR will provide engineering, evaluation, and relevant engineering project management-related services. Key members of the HDR team include the following:

Role	Staff
Client Manager	Nate Dalager, PE (MN)
Project Manager	Jacob Huwe, PE (MN)
Transportation Engineer	Matthew Huettl, PE (ND)
	Dan Bergerson, PE (ND)
Structural Engineer	Matt Robinson, PE
Environmental Services	Torin McCormack
	Tina Robinson
Geotechnical Engineer	Kerrie Berg, PE (MN)
QA/QC	Troy Borchard, PE (ND)
	Glen Krogman, PE (SD)
Technician	Randy Knott

Project Schedule

HDR proposes the following schedule for this project.

ACTIVITY	MILESTONE DATE
Prelim Structure Design	8-15-2023*
Prelim Roadway Design	9-01-2023*
Legal Survey	10-30-2023^
SOV Letters	10-30-2023
Cultural Survey Pre-Meeting	10-30-2023
Cultural Class III Field Survey	10-30-2023
Preliminary Plats	11-21-2023^
ROW Offers	11-30-2023^
Title	11-30-2023^
Preliminary Utility Coordination Plans	12-15-2023
Structure Hydraulics	12-15-2023
Floodplain Permit Application	1-15-2024
90% Plan/PS&E Review	1-15-2024
Final Structure Design	1-30-2024
Final Roadway Design	1-30-2024
Section 404 Permit Application (NWP)	2-15-2024
Draft Documented CATEX	3-15-2024
Floodplain Permit	4-15-2024
Documented CATEX	4-22-2024
Plans Completed	5-01-2024

*Completed under separate contract

^Completed by others

Cost Estimate

The estimated cost for the work described above is \$164,570, which will be performed on a time and materials not-to-exceed basis. HDR will invoice monthly based on work progress. Our estimated costs are based upon our understanding of the scope of work and assumptions listed. Should the scope of work be modified, it may be necessary to review scope changes and our cost estimate.

Notice to Proceed

Please indicate your acceptance of this proposal by signing the Notice to Proceed (below) and returning one copy of the signed proposal to HDR. If you have any questions, please contact Jacob at 218.681.6100.

NOTICE TO PROCEED

Client

City of Neche

By: Stuart Symington

Name: Stuart Symington

Title: Mayor - City of Neche

Consultant

HDR Engineering, Inc.

By: Christine Wiegert

Name: Christine Wiegert

Title: Vice President/MN-WI Area Manager

Task No.	Task/Title	Senior Project Manager	Senior Civil Engineer	Water Resources Engineer	Technician	Structural Engineer	Transportation Engineer	Senior Transportation Engineer	Environmental Scientist	GIS Analyst	Hours	Labor Fee
	Hourly Rates	\$ 230	\$ 230	\$ 160	\$ 155	\$ 155	\$ 160	\$ 200	\$ 150	\$ 105		
1	Project Management	28	4	50	0	6	22	32	16	0	158	\$ 28,610
2	Final Structure Hydraulics Report	0	0	64	0	0	0	0	0	6	70	\$ 10,870
3	Permitting and Environmental Compliance	0	0	20	16	0	0	4	264	0	304	\$ 46,080
4	Final Precast Box Culvert Design	0	18	16	100	120	0	0	0	0	254	\$ 40,800
5	Final Roadway Design	0	20	4	100	0	68	32	0	0	224	\$ 38,020
	Totals	28	42	154	216	126	90	68	280	6	1010	\$ 164,380
									HDR Labor Subtotal	\$		164,380
									Mileage (\$0.75/mile)	\$		150
									Printing / Plotting	\$		40
									HDR Direct Expenses Subtotal	\$		190
									Total Fee	\$		164,570

Water Development Plan: Yes (2023)
Priority: Low

F2

21836 - 22041 - Cass County Drain No. 34 - Construction

Application Details

Funding Opportunity:	19214-State Fiscal Year 2022-2023 Infrastructure Request	Initial Submit Date:	Dec 27, 2022 11:43 AM
Funding Opportunity Due Date:	Mar 31, 2023 3:00 PM	Initially Submitted By:	Joshua Hassell
Program Area:	Funding for Infrastructure in ND - FIND	Last Submit Date:	Oct 23, 2023 3:32 PM
Status:	Under Review	Last Submitted By:	Joshua Hassell
Stage:	Final Application		

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Salutation Joshua
First Name

Middle Name Hassell
Last Name

Title:

Email*:
joshua.hassell@mooreengineeringinc.com

Address*: 925 10th Avenue East

Organization Information

Status*: Approved

Name*:
Maple River Water Resource District

Organization Type*: Political Subdivision

Tax Id: 45-0357490

Organization Website:

Address*: 1201 Main Avenue W

Suite 1

West Fargo North Dakota
City State/Province

58078

Postal Code/Zip

Phone*: (701) 282-4692 Ext.
Phone

###-###-####

Fax: ###-###-####

Comments:

West Fargo North Dakota
City State/Province

58078-_____

Postal Code/Zip

Phone*: (701) 298-2381 Ext.
###-###-####

Fax: ###-###-####

Benefactor:**Vendor ID:**

**PeopleSoft
Supplier ID:**

Comments:

**Location
Code:**

**SAM.gov
Entity ID:**

**SAM.gov
Name:**

**SAM.gov
Entity ID
Expiration
Date:**

**State Issued
ID:**

Category #:**Year Begin:****Year Closed:****NCES#:**

Restricted 0.00%
Indirect Cost
Rate:

Unrestricted 0.00%
Indirect Cost
Rate:

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: Cass County Drain No. 34 Improvements

Sponsor(s)*: Maple River Water Resource District

County*: Cass

City*: Kindred/Davenport

Description of Request*: New

If Study, What Type:

If Project/Program, What Type:

Jurisdictions/Stakeholders Involved*:

Maple River Water Resource District, Cass County, Local Landowners

Describe the Problem*:

The legal drain was originally designed and constructed with steep 2H:1V slopes. Some portions of the drain were flattened to 3H:1V in 1951, but no significant work has been done in decades. Significant side slope sloughing and channel erosion have been observed and documented during facility inspections.

Provide Project Details, Objectives and Solutions to Address Problem*:

The proposed project would establish a new gradeline with flattened side slopes for channel stability, and replace existing crossings that are undersized or past their service life. Due to the cost of reconstructing all 8 miles of the drain, this application is just for the upstream 4 miles of the drain.

For this project,

Choose City, County or Water District*: Water District

What is the Current Estimated Population?*: 1250

For this project,

What is the Benefited Population?*: 1250

Has Feasibility Study Been Completed?*: No

Has Engineering Design Been Completed?*: Ongoing

Have Assessment Districts Been Formed?*: Yes

Date Formed: 04/05/2012

Have Land or Easements Been Acquired?*: Ongoing

Has Sediment Analysis For Reconstruction Of An Existing Drain Been Completed?*: Yes

Extraterritorial Jurisdiction?*: No

Have You Applied For Any Federal Permits?*: Yes

If Yes or Ongoing, Please Explain (include type/number):

Application for a Section 404 USACE Nationwide Permit 3 was submitted on 11/18/22

Have You Been approved for any Federal Permits?*: Yes

If Yes or Ongoing, Please

Explain

(include type/number):

Application was approved on 6/29/23

Have You Applied for any State Permits?* Yes

If Yes or Ongoing, Please

Explain

(include type/number):

Application for Surface Drain (SNF 2830) was submitted on 11/22/22.

Have You Been Approved for any State Permits?* Yes

If Yes or Ongoing, Please

Explain

(include type/number):

Surface Drain Permit No. 6188 was approved on 4/06/23

Have You Applied for any Local Permits?* No

If Yes or Ongoing, Please

Explain

(include type/number):

Briefly explain the level of review the Project/Program/Study has undergone.

Level Review*:

Preliminary data collection, hydrologic and hydraulic modeling, preliminary design, and a report outlining the costs of proposed improvements. A capital improvement plan was also developed to determine the highest priority crossings and channel work and how much the board can afford to improve. Final design for the upstream 4 miles of the drain is underway.

Do You Expect Any Obstacles to Implementation (i.e. Problems with Land Acquisition, Permits, Funding, Local Opposition, Environmental Concerns, etc.)?*

No

Have you received, or do you anticipate receiving federal funding?

Have You Received, or Do You Anticipate Receiving Federal Funding?*

No

Implementation Timelines

Study Completion*: 00/0000
Month/Year (00/0000)

Design Completion*: 12/2023
Month/Year (00/0000)

Bid*: 04/2023
Month/Year (00/0000)

Construction Start*: 05/2023
Month/Year (00/0000)

Construction Completion*: 11/2023
Month/Year (00/0000)

Explain Additional Timeline Issues*:

Pending approval of EA

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Carol Harbeke Lewis 12/22/2022
First Name Last Name Date

Address*: 1201 Main Avenue West
Address Line 1
Address Line 2

West Fargo North Dakota 58078-0000
City State Zip Code

Telephone Number*: 701-298-2381

Sponsor Email*: LewisC@casscountynd.gov

Consulting Engineer*: Moore Engineering, Inc. (Alexa Ducioame)

Engineer Telephone Number*: 701-282-4692

Engineer Email*: alexa.ducioame@mooreengineeringinc.com

I Certify That, to the Best of My Knowledge, the Provided Information is True and Accurate*: Yes

Authorized Individual*: Carol Harbeke Lewis 12/22/2022
First Name Last Name Date

Documentation

Documentation

CLICK HERE to see examples.

Project Specific Map (Must Include Project Location in State Using an Inset Map)*: 22041_NDSWC_CSmap-US4mi_v2.pdf

Are You Seeking Department of Water Resources Cost-Share?* Yes

CLICK HERE for SFN 61801 Delineation of Costs Instructions and Current Version.

Delineation of Costs SFN 61801: 22041_CassD34_sfn_61801_delineation_of_cost_20221220.xlsx

Type of Request: Construction

Signed Plans and Specifications For Bidding: 22041_PlanSet_v8_20231023.pdf

Water Supply Projects?: No

Rural Flood Control?: Yes

Approved Drainage Permit: 2023-04-06 - Surface Drain Permit No. 6188 - signed.pdf

Results Of Positive Assessment Vote: Drain 34 Assessment List 2021.xlsx

Drain Reconstructions?: Yes

Sediment Analysis: 22041_Sediment_Analysis.pdf

Flood Recovery Property Acquisition?: No

Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of \$200,000 or More?: Yes

CLICK HERE for Economic Analysis Instructions.

Economic Analysis:

Feasibility/Engineering Study for the Proposed Project or Other Applicable Documents: Yes

Feasibility/Engineering Study Material or Other Applicable Document: 22041_Construction_CoverLetter_SIGNED.pdf

Engineering Total Cost of \$35,000 or More?: Yes

Engineering Selection Documentation:

Sources

Funding Amount Requested - Include Amount Requested for All State Funding Sources

State Fiscal Year 1 July to June	State Fiscal Year 2 July to June	Beyond Current Biennium	Total Cost	Source Type	Term	Interest Rate
\$997,457.00	\$0.00	\$0.00	\$997,457.00		0.00	0.00
\$997,457.00	\$0.00	\$0.00	\$997,457.00			
\$643,376			\$643,376			

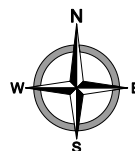
Other Funding Sources

Type	Grant or Source	State Fiscal Year 1	State Fiscal Year 2	Beyond Current	Total Other
		July to June	July to June	Biennium	Sources
Local WRD	Loan	\$1,422,520.00	\$0.00	\$0.00	\$1,422,520.00
Other County	Grant	\$241,792.00	\$0.00	\$0.00	\$241,792.00
		\$1,664,312.00	\$0.00	\$0.00	\$1,664,312.00

Project Total

Current Requested Amount:	\$997,457.00
Other Funding Sources:	\$1,664,312.00
Total Project:	\$2,661,769.00

Created By: GIS Date Created: XX/XX/20 Date Saved: 06/24/22 Date Plotted: NEVER Date Exported: 06/24/22
Plotted By: andrew.smith Parcel Date: XX/XX/20 Aerial Image: 2019 County NAIP SIDS Elevation Data: Lidar
Horizontal Datum: NAD 1983 UTM Zone 14N Vertical Datum: NAVD1988
T:\Projects\22000\22041\22041 NDSWC CSmap-US4mi.mxd





DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (7/2021)

DWR Date Received : October 30, 2023

Project: Cass County Drain No. 34 Channel Improvements
Sponsor: Maple River Water Resource District
Contact: Carol Harbeck Lewis, Secretary-Treasurer
Phone: (701) 298-2381
Engineer: Alexa Ducioame, Moore Engineering, Inc.
Phone: (701) 282-4692

Total Cost : \$ 2,724,664
Ineligible Cost : \$ 465,257 \$649,257
Eligible Cost : \$ 2,259,407 \$2,075,407
Local Cost : \$ 1,707,964 \$2,081,288
Cost-Share \$ 1,016,733 \$643,376

Date: September 3, 2021

Project Type: Rural Flood Control - Drains, Channel, Diversion
Cost-share % 45% 31%

		Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Construction Costs								
1	1.5%	Mobilization	1	LS	25,000.00	\$ 25,000	45%	\$ 11,250
2	0.3%	Clearing & Grubbing	1	LS	5,000.00	\$ 5,000	45%	\$ 2,250
3	2.3%	Topsoil - Stripping & Spreading	4	Mile	10,000.00	\$ 40,000	45%	\$ 18,000
4	17.3%	Excavation - Common	149140	CY	2.00	\$ 298,280	45%	\$ 134,226
5	1.4%	Spoil Bank Leveling	4	Mile	6,000.00	\$ 24,000	45%	\$ 10,800
6	1.2%	Culvert - Remove (All Types & Sizes)	1406	LF	15.00	\$ 21,090	45%	\$ 9,491
7	0.6%	Bridge - Remove	1	EA	10,000.00	\$ 10,000	45%	\$ 4,500
8	7.7%	RCB - 12' x 5'	60	LF	2,200.00	\$ 132,000	45%	\$ 59,400
9	7.2%	RCB - 10' x 4'	60	LF	2,066.67	\$ 124,000	45%	\$ 55,800
10	14.4%	RCB - 8' x 6'	140	LF	1,764.29	\$ 247,000	45%	\$ 111,150
11	13.4%	RCB - 8' x 5'	152	LF	1,513.16	\$ 230,000	45%	\$ 103,500
12	2.0%	CSP - 18"	500	LF	68.00	\$ 34,000	45%	\$ 15,300
13	2.1%	CSP - 24"	450	LF	82.00	\$ 36,900	45%	\$ 16,605
14	2.1%	CSP - 30"	350	LF	102.00	\$ 35,700	45%	\$ 16,065
15	3.4%	CSP - 36"	500	LF	118.00	\$ 59,000	45%	\$ 26,550
16	3.7%	Riprap - Class III	800	CY	80.00	\$ 64,000	45%	\$ 28,800
17	4.2%	Riprap - Class IV	900	CY	80.00	\$ 72,000	45%	\$ 32,400
18	0.5%	Riprap Filter Blanket	3000	SY	3.00	\$ 9,000	45%	\$ 4,050
19	0.4%	Gravel - NDDOT Class 13	200	CY	35.00	\$ 7,000	45%	\$ 3,150
20	0.1%	Geotextile Fabric	700	SY	3.00	\$ 2,100	45%	\$ 945
21	0.5%	Rock Check - Temporary	4	EA	2,000.00	\$ 8,000	45%	\$ 3,600
22	0.7%	Storm Water Management	1	LS	12,500.00	\$ 12,500	45%	\$ 5,625
23	0.1%	Traffic Control	1	LS	2,500.00	\$ 2,500	45%	\$ 1,125
24	0.4%	Material Testing	1	NA	7,500.00	\$ 7,500	45%	\$ 3,375
25	1.7%	Seeding - Type III	24	Ac	1,200.00	\$ 28,800	45%	\$ 12,960
26	1.6%	Select Backfill	800	CY	35.00	\$ 28,000	45%	\$ 12,600
		Construction Sub-Total				\$ 1,563,370	45%	\$ 703,517
	10.0%	Contingency				\$ 156,337	45%	\$ 70,352
	63.1%	Construction Total				\$ 1,719,707	45%	\$ 773,868
Engineering Costs								
27	8.2%	Engineering - Construction	1	NA	140,700.00	\$ 140,700	45%	\$ 63,315
28	0.0%				\$ -	\$ -	45%	\$ -
29	10.7%	Final Design	1	NA	184,000.00	\$ 184,000	45%	\$ 82,800
30	0.0%		0		\$ -	\$ -	45%	\$ -
31	0.0%		0		\$ -	\$ -	45%	\$ -
32	0.0%		0		\$ -	\$ -	45%	\$ -
32	0.0%		0		\$ -	\$ -	45%	\$ -
33	0.0%		0		\$ -	\$ -	45%	\$ -
	11.9%	Engineering Total				\$ 324,700	45%	\$ 146,115
Other Eligible Costs								
34	7.9%	Utility Relocations	1		215,000.00	\$ 215,000	45%	\$ 96,750
35	0.0%		1		\$ -	\$ -	45%	\$ -
36	0.0%		1		\$ -	\$ -	45%	\$ -
37	0.0%		1		\$ -	\$ -	45%	\$ -
38	0.0%		1		\$ -	\$ -	45%	\$ -
39	0.0%		1		\$ -	\$ -	45%	\$ -
40	0.0%		1		\$ -	\$ -	45%	\$ -
41	0.0%		1		\$ -	\$ -	45%	\$ -
	7.9%	Other Eligible Total				\$ 215,000	45%	\$ 96,750
In-eligible Costs								
42	8.6%	Property Acquisitions	1		233,500.00	\$ 233,500	0%	\$ -
43	0.1%	Administrative	1		2,500.00	\$ 2,500	0%	\$ -
44	0.9%	Legal Expenses	1		25,000.00	\$ 25,000	0%	\$ -
45	0.1%	Economic Analysis Development	1		2,500.00	\$ 2,500	0%	\$ -
46	0.7%	Easement	1		20,000.00	\$ 20,000	0%	\$ -
47	0.9%	Fiscal	1		25,000.00	\$ 25,000	0%	\$ -
48	0.0%	Sediment Removal	210	CY	2.00	\$ 420	0%	\$ -
49	5.7%	Contingencies (ineligible)	1		156,337.00	\$ 156,337	0%	\$ -
	17.1%	Other Ineligible Total				\$ 465,257	0%	\$ -
	100.0%	Total				\$ 2,724,664		
		Eligible Total				\$ 2,259,407	45%	\$ 1,016,733
							31%	
		Federal or State Funds That Supplant Costs				\$ -		
		Eligible Cost Total				\$ 2,259,407	45%	\$ 1,016,733
							31%	

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

\$2,259,407 Total Eligible
-\$184,000 Already addressed under preconstruction
\$2,075,407 Remaining eligible
x 31% Cost-share percentage
\$643,376

Approved 8/18/2022
Preconstruction

Economic Analysis Review

Project Title: Cass County Drain No. 34 Improvements Project Date: October 30, 2023
 Description: The proposed project would establish a new gradeline with flattened side slopes for channel stability, and replace existing crossings that are undersized or past their service life.
 Project Type:

Project Overview			
Project Area:	34 2 miles west of Kindred, ND		
County	Cass		
City	West of Kindred, ND		
Agricultural Acres Impacted	570		
Urban	No		
Population Served	-		
Cost	Construction	O & M	Total
Nominal	\$2,724,664	\$0/yr	\$2,724,664
PV (50 years)	\$2,691,436	\$0	\$2,691,436
\$ / Acre	\$4,719.33	\$0.00	\$4,719.33

Inputs	
Protection Level:	1:10
Consumptive and Non-Consumptive Benefits:	NA
Detours:	NA

Results			
Project Performance Metrics	Present Value	Average Annual	Notes
Benefit-to-Cost Ratio	0.691		
Net Benefits	-\$605,564	-\$21,351	
Internal Rate of Return (IRR)	0%		
Payback Year	None		

Average Annual Damages							
Rural				Urban			
	Difference	Without	With		Difference	Without	With
Cropland	\$13,057	\$36,950	\$23,893	Damage to structures at risk	\$0	\$0	\$0
Pasture	\$97	\$231	\$134	Value of other flood costs	\$0	\$0	\$0
\$	\$13,154	\$37,181	\$24,026				

Model Function

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor. The cost of like for like culvert replacements were subtracted from the present value costs resulting in a cost below the actual total project cost for the determination of benefit-to-cost ratio in the performance metrics. The project engineer confirmed all acres identified as benefitting, are newly benefitting acres and do not include acres previously benefitting from the existing drain or waterway as previously designed or functioning.

Explanation of Results

The sponsors identified up to 570 acres of agricultural lands benefiting from altered drainage and flood attenuation resulting from this project for events up to a 1 in 10 probability with the project designed for the 1 in 10 event probability. The B/C ratio is less than 1.0 (0.69) and the net benefit of the project is estimated at -\$605,564 over the next 50 years. The estimated probable annual net cost is \$21,351. The cost-share percentage by policy is determined to be $45\% * 0.69 = 31\%$.

Glossary

PV - Present Value of all future costs or benefits adjusted to the current dollar value using an interest rate factor.

1:100 - The probability of an event. Commonly referred to as a one in one hundred year event. It is more accurately a one in one hundred chance of an event of a specific magnitude happening each individual year.

Nominal - Refers to the dollars spent or benefitted without adjusting for the time value of money or inflation.

Non-consumptive Benefits - These occur when an individual's use does not diminish the supply for other consumers of the benefit (e.g. bird watching).

Damage To Structures At Risk - Is the segregation of flood costs related to physical damage to structures.

Value of Other Flood Costs - All other costs associated with an event (e.g. flood fighting operations, time delays, relocations, etc).

Water Development Plan: Yes 2023
Plan Priority: Low

F3

1081910 - 22211 - Cass Co. Drain No 37 Improvements - Construction

Application Details

Funding Opportunity:	Initial Submit Date:	Oct 24, 2023 1:50 PM
22356-State Fiscal Year 2023-2024 Infrastructure Request	Initially Submitted By:	Joshua Hassell
Funding Opportunity Due Date:	Last Submit Date:	
Jun 30, 2024 3:00 PM	Last Submitted By:	
Program Area:		
Funding for Infrastructure in ND - FIND		
Status:		Under Review
Stage:		Final Application

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Salutation Joshua
First Name

Middle Name Hassell
Last Name

Title:

Email*:
joshua.hassell@mooreengineeringinc.com

Address*: 925 10th Avenue East

Organization Information

Status*: Approved

Name*:
Maple River Water Resource District

Organization Type*: Political Subdivision

Tax Id: 45-0357490

Organization Website:

Address*: 1201 Main Avenue W

Suite 1

West Fargo

North Dakota

City

State/Province

58078

Postal Code/Zip

Phone*:

(701) 282-4692

Ext.

Phone

###-###-####

Fax:

###-###-####

Comments:

West Fargo

North Dakota

City

State/Province

58078-_____

Postal Code/Zip

Phone*:

(701) 298-2381

Ext.

###-###-####

Fax:

###-###-####

Benefactor:

Vendor ID:

PeopleSoft

Supplier ID:

Comments:

Location

Code:

SAM.gov

Entity ID:

SAM.gov

Name:

SAM.gov

Entity ID

Expiration

Date:

State Issued

ID:

Category #:

Year Begin:

Year Closed:

NCES#:

Restricted 0.00%
Indirect Cost
Rate:

Unrestricted 0.00%
Indirect Cost
Rate:

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: Cass County Drain No. 37 Improvements

Sponsor(s)*: Maple River Water Resource District

County*: Cass

City*: Kindred/Davenport

Description of Request*: Updated (previously submitted)

If Study, What Type:

If Project/Program, What Type: Flood Control

Jurisdictions/Stakeholders Involved*:

Maple River Water Resource District
Cass County
Local Landowners

Describe the Problem*:

Cass County Drain No. 37 has experienced significant channel erosion due to steep channel grades.

Provide Project Details, Objectives and Solutions to Address Problem*:

The project will repair channel erosion and slope erosion issues by reducing channel gradient and flattening side slopes in the upstream 2.6 miles of the existing Cass County Drain No. 37.

For this project,

Choose City, County, Water District or Other*: Water District

What is the Current Estimated Population?*: 1250

For this project,

What is the Benefited Population?*: 1250

Have Assessment Districts Been Formed?*: Yes

Date Formed: 04/05/2012

Have Land or Easements Been Acquired?*: Yes

Are There Any Properties with Wells, Drain Fields, or Holding Tanks Within the Project Area That Will Benefit from the Project?*: Yes

Are There Any Road Improvements Included as Part of the Project?*: No

Have You Applied For Any Federal Permits?*: Yes

If Yes or Ongoing, Please Explain (include type/number):

Application for a Section 404 USACE Nationwide Permit 3 was submitted on 1/03/2023

Have You Been approved for any Federal Permits?*: Yes

If Yes or Ongoing, Please Explain (include type/number):

Application approved on 4/17/2023

Have You Applied for any State Permits?* Yes

**If Yes or Ongoing, Please Explain
(include type/number):**

Application for Surface Drain (SNF 2830) was submitted on 07/11/22.

Have You Been Approved for any State Permits?: Yes

**If Yes or Ongoing, Please Explain
(include type/number):**

Surface Drain Permit No. 6070 was approved on 09/09/2022

Have You Applied for any Local Permits?* No

**If Yes or Ongoing, Please Explain
(include type/number):**

**Do You Expect Any Obstacles to Implementation
(i.e. Problems with Land Acquisition, Permits, Funding, Local Opposition, Environmental Concerns, etc.)?*** No

Have You Received, or Do You Anticipate Receiving Federal Funding? No
(Example: Hazard Mitigation Grant Program)
*:

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: N/A

Design Completion*: 03/2024

Bid*: 04/2024

Construction Start*: 05/2024

Construction Completion*: 11/2024

Explain Additional Timeline Issues*:

Pending EA approval

Consulting Engineer*: Moore Engineering (Alexa Ducioame)

Engineer Telephone Number*: 701-282-4692

Engineer Email*: alexa.ducioame@mooreengineeringinc.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Carol Harbeke Lewis 10/24/2023
First Name Last Name Date

Address*: 1201 Main Avenue West
Address Line 1
Suite 1
Address Line 2
West Fargo North Dakota 58078-0000
City State Zip Code

Telephone Number*: 701-298-2381

Sponsor Email*: LewisC@casscountynd.gov

I Certify That, to the Best of My Knowledge, the Provided Information is True and Accurate*: Yes

Authorized Individual*:	Carol Harbeke Lewis	10/24/2023
	First Name Last Name	Date
Title/Position/Authority*:	Secretary/Treasurer	

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If Yes, Add Boundary to Project Specific Map.*: No

[CLICK HERE to see examples.](#)

Project Specific Map 22211_ProjectMap_20221118.pdf

Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community

*:

Are You Seeking Department of Water Resources Cost-Share?* Yes

Are You Seeking Cost-Share for a Main Street Initiative Related Project?: No

Attach Completed Comprehensive Plan:

[CLICK HERE for SFN 61801 Delineation of Costs Instructions and Current Version.](#)

Delineation of Costs SFN 61801: 22211_CostShare_DelineationOfCosts_20221221.xlsx

Type of Request: Construction

Signed Plans and Specifications For Bidding: 22211_PreliminaryPlans_20230418_v4.pdf

Water Supply Projects?: No

Rural Flood Control?: Yes

Approved Drainage Permit: 2022-10-06 - Surface Drain Permit No. 6070 - signed.pdf

Results Of Positive Assessment Vote: Drain 37 Assessment List 2021.xlsx

Drain Reconstructions?: Yes

Sediment Analysis: 22211_Sediment Analysis_20221214.pdf

Flood Recovery Property Acquisition?: No

Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of \$200,000 or More?: Yes

CLICK HERE for Economic Analysis Instructions.

Economic Analysis: 22211_EconomicAnalysis_v2_20230825.xlsx

Sovereign Land Permit, if Required:

DWR Construction Permit, if Required:

Conditional Letter of Map Revision (CLOMR), if Required:

Feasibility/Engineering Study for the Proposed Project: No

Photos of Problem/Issue:

Other Applicable Document(s): Yes

Other Applicable Document: 22211_FinalDesignConstruction_CoverLetter_SIGNED.pdf

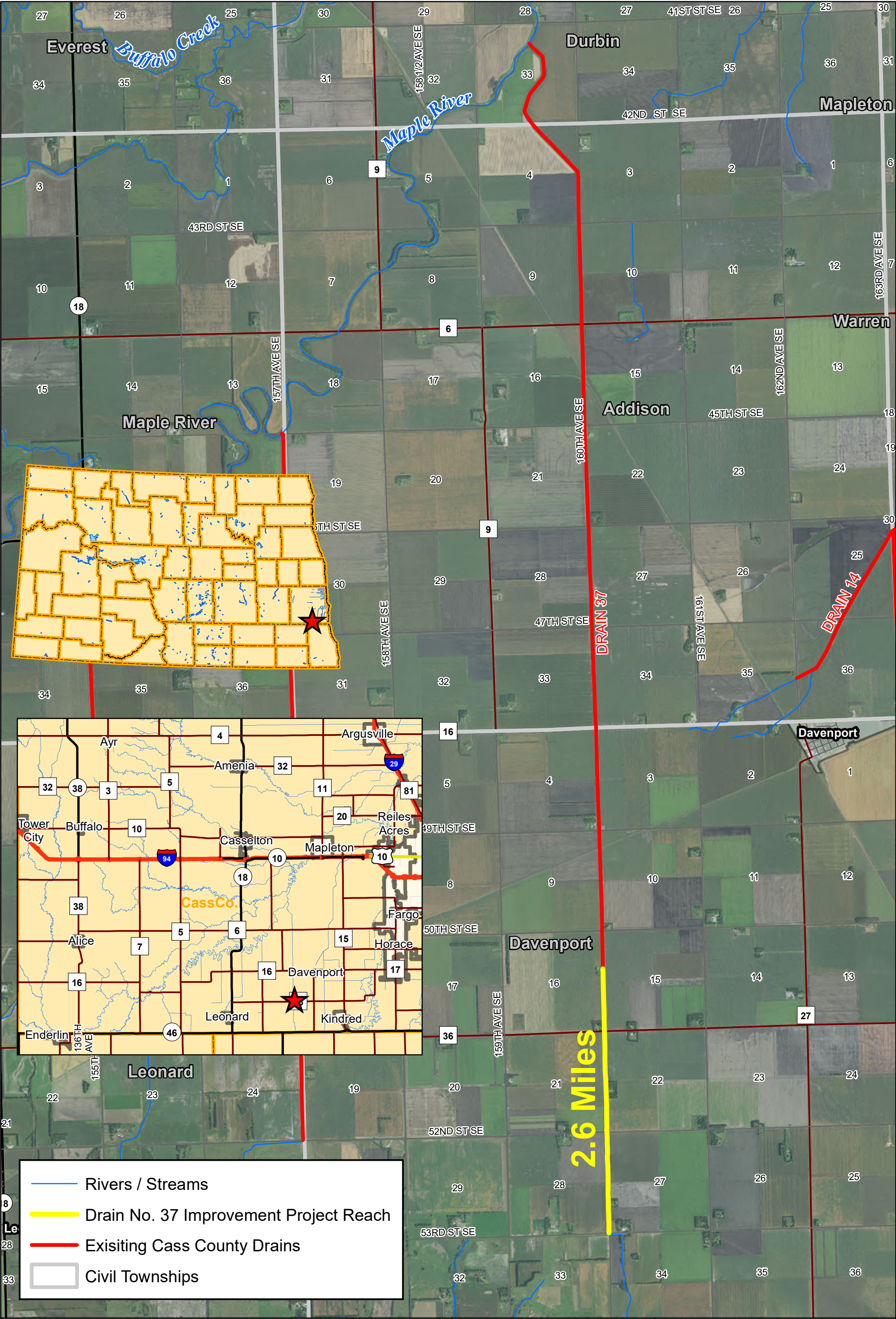
Other Applicable Document:

Other Applicable Document:

Sources

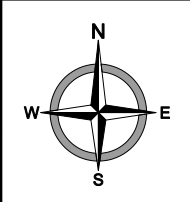
Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

Source	If Other, Specify Funding Source	State Fiscal			Total Cost	Type	Term	Interest Rate
		State Fiscal Year 1 July to June	Year 2 July to June	Beyond Current Biennium				
Department of Water Resources Cost Share Construction		\$583,034.00 \$292,909	\$0.00	\$0.00	\$583,034.00 \$292,909	Grant	0.00	0.00
Other	County	\$96,771.00	\$0.00	\$0.00	\$96,771.00	Grant	0.00	0.00
Other	Local	\$802,825.00	\$0.00	\$0.00	\$802,825.00	Loan	0.00	0.00
		\$1,482,630.00	\$0.00	\$0.00	\$1,482,630.00			



Cass County Drain No. 37 Improvement Project
Maple River Water Resource District
Cass County, North Dakota

Created By: AKS Date Created: 10/11/2021 Date Saved: 11/18/22 Date Plotted: NEVER Date Exported: 11/18/22
Plotted By: andrew.smith Parcel Date: XX/XX/20 Aerial Image: 2019 County NAIP SIDS Elevation Data: Lidar
Horizontal Datum: NAD 1983 UTM Zone 14N Vertical Datum: NAVD1988
T:\Projects\22200\22211\22211_ProjectMap_20211011.mxd





DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (10/2021)

DWR Date Received : Month Day, Year

Project: Cass County Drain No. 37 Improvement Project
Sponsor: Maple River Water Resource District
Contact: Carol Lewis - Secretary-Treasurer
Phone: (701) 298-2381
Engineer: Moore Engineering, Inc.
Phone: (701) 282-4692

Total Cost : \$ 1,482,287
Ineligible Cost : \$ 190,433
Eligible Cost : \$ 1,291,855
Local Cost : \$ 900,987

Date: October 27, 2023

Cost-Share \$
\$ 581,300 **\$325,039**
Preconstruction : \$ 32,130
Construction : \$ 549,205 **\$292,909**

Project Type: Rural Flood Control - Drains, Channel, Diversion
Cost-share % 45% **24%**

		Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Construction Costs								
1	3.5%	Mobilization	1	LS	30,000.00	\$ 30,000	45%	\$ 13,500
2	2.3%	Clearing & Grubbing	1	LS	20,000.00	\$ 20,000	45%	\$ 9,000
3	11.0%	Excavation - Common	38127	CY	2.50	\$ 95,318	45%	\$ 42,893
4	3.0%	Spoil Bank Leveling	2.6	Mile	10,000.00	\$ 26,000	45%	\$ 11,700
5	6.0%	Topsoil - Stripping & Spreading	2.6	Mile	20,000.00	\$ 52,000	45%	\$ 23,400
6	0.5%	Culvert - Remove (All Types & Sizes)	302	LF	15.00	\$ 4,530	45%	\$ 2,039
7	5.7%	CSPA - 73" X 55"	132	LF	375.00	\$ 49,500	45%	\$ 22,275
8	8.1%	CSPA - 87" X 63"	156	LF	450.00	\$ 70,200	45%	\$ 31,590
9	14.3%	CSPA - 137" X 87"	166	LF	750.00	\$ 124,500	45%	\$ 56,025
10	1.2%	CSP - 18"	120	LF	83.33	\$ 10,000	45%	\$ 4,500
11	4.6%	CSP - 24"	420	LF	95.83	\$ 40,250	45%	\$ 18,113
12	4.2%	CSP - 30"	300	LF	122.92	\$ 36,875	45%	\$ 16,594
13	3.3%	CSP - 36"	180	LF	161.25	\$ 29,025	45%	\$ 13,061
14	2.3%	Select Backfill	560	CY	35.00	\$ 19,600	45%	\$ 8,820
15	0.2%	Geotextile Fabric	475	SY	3.00	\$ 1,425	45%	\$ 641
16	2.8%	Riprap - Class III	300	CY	80.00	\$ 24,000	45%	\$ 10,800
17	7.1%	Riprap - Class IV	771	CY	80.00	\$ 61,680	45%	\$ 27,756
18	0.6%	Riprap Filter Blanket	1696	SY	3.00	\$ 5,088	45%	\$ 2,290
19	2.1%	Seeding - Type III	12	Acre	1,500.00	\$ 18,000	45%	\$ 8,100
20	0.7%	Rock Check - Temporary	3	EA	2,000.00	\$ 6,000	45%	\$ 2,700
21	2.3%	Rock Check - Permanent	5	EA	4,000.00	\$ 20,000	45%	\$ 9,000
22	2.3%	Storm Water Management	1	LS	20,000.00	\$ 20,000	45%	\$ 9,000
23	1.4%	Traffic Control	1	LS	12,000.00	\$ 12,000	45%	\$ 5,400
24	1.2%	Material Testing	1	LS	10,000.00	\$ 10,000	45%	\$ 4,500
25	0.4%	Gravel - NDDOT Class 13	90	CY	35.00	\$ 3,150	45%	\$ 1,418
26	0.0%		0		-	\$ -	45%	\$ -
		Construction Sub-Total				\$ 789,141	45%	\$ 355,113
	10.0%	Contingency				\$ 78,914	45%	\$ 35,511
	58.6%	Construction Total				\$ 868,055	45%	\$ 390,625
Preconstruction Costs								
27	8.2%	Final Design	1	NA	71,400.00	\$ 71,400	45%	\$ 32,130
28	0.0%		0		-	\$ -	45%	\$ -
29	0.0%		0		-	\$ -	45%	\$ -
30	0.0%		0		-	\$ -	45%	\$ -
31	0.0%		0		-	\$ -	45%	\$ -
	4.8%	Preconstruction Total				\$ 71,400	45%	\$ 32,130
Construction Engineering Costs								
32	8.2%	Project Inspection	1	NA	71,400.00	\$ 71,400	45%	\$ 32,130
33	32.4%	Utility Relocation	1	NA	281,000.00	\$ 281,000	45%	\$ 126,450
34	0.0%		0		-	\$ -	45%	\$ -
35	0.0%		0		-	\$ -	45%	\$ -
36	0.0%		0		-	\$ -	45%	\$ -
	23.8%	Construction Engineering Total				\$ 352,400	1170000%	\$ 158,580
Other Eligible Costs								
37	0.0%		0		-	\$ -	45%	\$ -
38	0.0%		0		-	\$ -	45%	\$ -
39	0.0%		0		-	\$ -	45%	\$ -
40	0.0%		0		-	\$ -	45%	\$ -
41	0.0%		0		-	\$ -	45%	\$ -
	0.0%	Other Eligible Total				\$ -	45%	\$ -
In-eligible Costs								
42	9.7%	Property Acquisitions	1	NA	144,500.00	\$ 144,500	0%	\$ -
43	1.9%	Legal Expenses	1	NA	27,500.00	\$ 27,500	0%	\$ -
44	1.0%	Fiscal	1	NA	15,000.00	\$ 15,000	0%	\$ -
45	0.2%	Sediment Removal	1373	CY	2.50	\$ 3,433	0%	\$ -
	12.8%	Other Ineligible Total				\$ 190,433	0%	\$ -
100.0%		Total				\$ 1,482,287		
		Eligible Total				\$ 1,291,855	45%	\$ 581,335
		Federal or State Funds That Supplant Costs				\$ -		
		Eligible Cost Total				\$ 1,291,855	45%	\$ 581,335

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

\$1,291,855 Eligible Total
- 71,400 Final Design previously addressed
\$1,220,455 remaining eligible total
x 24% cost-share percentage
\$292,909

Economic Analysis Review

Project Title:	Cass County Drain No. 37 Improvements Project	Date:	October 25, 2023
Description:	The proposed project would establish a new gradeline with flattened side slopes for channel stability, and replace existing crossings that are undersized or past their service life.		
Project Type:	Conveyance		

Project Overview			
Project Area:	5 miles west of Kindred, ND		
County	Cass		
City	0		
Agricultural Acres Impacted	320		
Urban	No		
Population Served	-		
Cost	Construction	O & M	Total
Nominal	\$1,482,630	\$0/yr	\$1,482,630
PV (50 years)	\$1,238,430	\$0	\$1,238,430
\$ / Acre	\$3,870.09	\$0.00	\$3,870.09

Inputs	
Protection Level:	1:10
Consumptive and Non-Consumptive Benefits:	NA
Detours:	NA

Results			
Project Performance Metrics		Notes	
	Present Value	Average Annual	
Benefit-to-Cost Ratio	0.525		
Net Benefits	-\$588,066	-\$20,734	
Internal Rate of Return (IRR)	-1%		
Payback Year	None		
Average Annual Damages			
Rural			Urban
	Difference	Without	With
Cropland	8,027	8,027	-
Pasture	0	0	0
\$	8,027	8,027	-
Model Function			
The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor. The cost of like for like culvert replacements were subtracted from the present value costs resulting in a cost below the actual total project cost for determination of the benefit-to-cost ratio in the performance metrics. The project engineer confirmed all acres identified as benefitting, are newly benefitting acres and do not include acres previously benefitting from the existing drain or waterway as previously designed or functioning.			

Explanation of Results
The sponsors identified up to 320 acres of agricultural lands benefiting from altered drainage and flood attenuation resulting from this project for events up to a 1 in 10 probability with the project designed for the 1 in 10 event probability. The B/C ratio is less than 1.0 (0.52) and the net benefit of the project is estimated at -\$588,066 over the next 50 years. The cost-share percentage by policy would be modified to reflect the B/C ratio of less than 1.0 (45% * 0.53 = 24%).

Glossary
PV - Present Value of all future costs or benefits adjusted to the current dollar value using an interest rate factor.
1:100 - The probability of an event. Commonly referred to as a one in one hundred year event. It is more accurately a one in one hundred chance of an event of a specific magnitude happening each individual year.
Nominal - Refers to the dollars spent or benefitted without adjusting for the time value of money or inflation.
Non-consumptive Benefits - These occur when an individual's use does not diminish the supply for other consumers of the benefit (e.g. bird watching).
Damage To Structures At Risk - Is the segregation of flood costs related to physical damage to structures.
Value of Other Flood Costs - All other costs associated with an event (e.g. flood fighting operations, time delays, relocations, etc).

Water Development Plan: Yes (2023)
Plan Priority: Low

F4

1081890 - 20243 - Blanchard-Norman Drain No. 23-40 - Construction Cost Share Amendment

Application Details

Funding Opportunity:	Initial Submit Date:	Oct 24, 2023 11:41 AM
22356-State Fiscal Year 2023-2024 Infrastructure Request	Initially Submitted By:	Joshua Hassell
Funding Opportunity Due Date:	Last Submit Date:	
Jun 30, 2024 3:00 PM	Last Submitted By:	
Program Area:		
Funding for Infrastructure in ND - FIND		
Status:		Under Review
Stage:		Final Application

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Salutation Joshua
First Name

Middle Name Hassell
Last Name

Title:

Email*:
joshua.hassell@mooreengineeringinc.com

Address*: 925 10th Avenue East

Organization Information

Status*: Approved

Name*:
Traill County Water Resource District

Organization Type*: Political Subdivision

Tax Id:

Organization Website:

Address*: 102 1st St SW

Suite 1

West Fargo North Dakota
City State/Province

58078

Postal Code/Zip

Phone*: (701) 282-4692 Ext.
Phone
###-###-####

Fax: ###-###-####

Comments:

Hillsboro North Dakota
City State/Province

58045-0000

Postal Code/Zip

Phone*: (701) 636-5812 Ext.
###-###-####

Fax: ###-###-####

Benefactor:**Vendor ID:**

**PeopleSoft
Supplier ID:**

Comments:

**Location
Code:**

**SAM.gov
Entity ID:**

**SAM.gov
Name:**

**SAM.gov
Entity ID
Expiration
Date:**

**State Issued
ID:**

Category #:**Year Begin:****Year Closed:****NCES#:**

Restricted 0.00%
Indirect Cost
Rate:

Unrestricted 0.00%
Indirect Cost
Rate:

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: Blanchard - Norman Drain No. 23-40 Improvement Project

Sponsor(s)*: Traill County Water Resource District

County*: Traill

City*: Hillsboro

Description of Request*: Updated (previously submitted)

If Study, What Type:

If Project/Program, What Type: Flood Control

Jurisdictions/Stakeholders Involved*:

Traill County Water Resource District and local landowners

Describe the Problem*:

The District is requesting an amendment to the construction cost share for this project. Since the original cost share agreement in April 2022 the Project was bid and the construction costs came in nearly 20% higher than originally estimated. Additionally, due to increased costs for wetland mitigation, a portion of the Project had to be redesigned to ensure wetland compliance. Alternative options were explored but ultimately the construction of upland berms for this portion of the project was the most cost-effective option but did lead to an increase in construction costs as well.

The proposed amendment would include the additional costs from the bids received and updated design. The original cost share agreement, dated 4/17/22, totaled \$1,130,002. The updated 2023 eligible costs is now \$1,448,200 and the updated benefit/cost ratio is 0.903. Therefore, with this proposed amendment the WRD is respectfully requesting an additional \$177,700 in construction cost share funds.

**Provide Project Details,
Objectives and Solutions to
Address Problem*:**

Landowners in the area of the drain have pursued this improvement project due to the undersized channel, culvert crossings, and drop structures that have resulted in poor agricultural drainage. This project proposes to replace many problematic crossings with culverts sized to meet WRD standards of 0.5 ft of headwater impact during a 10-year event. The project will also include widening and deepening the channel in many areas that will increase drain capacity and allow for additional grade for some adjacent areas to drain into.

For this project,

**Choose City, County, Water
District or Other*:** Water District

**What is the Current
Estimated Population?*** 8000

For this project,

**What is the Benefited
Population?*** 152

**Have Assessment Districts
Been Formed?*** Yes

Date Formed: 08/17/2021

**Have Land or Easements
Been Acquired?*** Yes

**Are There Any Properties
with Wells, Drain Fields, or
Holding Tanks Within the
Project Area That Will Benefit
from the Project?*** Yes

**Are There Any Road
Improvements Included as
Part of the Project?*** No

**Have You Applied For Any
Federal Permits?*** Yes

If Yes or Ongoing, Please

Explain

(include type/number):

Section 404 Nationwide Permit

Have You Been approved for any Federal Permits?: Yes

If Yes or Ongoing, Please

Explain

(include type/number):

Application approved on 6/06/2023

Have You Applied for any State Permits?*: Yes

If Yes or Ongoing, Please

Explain

(include type/number):

Surface Drain Application submitted on 8/10/2021

Highway Right of Way drainage permit application submitted on 9/6/2022

Have You Been Approved for any State Permits?: Yes

If Yes or Ongoing, Please

Explain

(include type/number):

Approved under Surface Drain Permit No. 5928 on 12/15/2021

Highway Right of Way drainage permit application approved on 9/26/2022

Have You Applied for any Local Permits?*: No

If Yes or Ongoing, Please

Explain

(include type/number):

Do You Expect Any Obstacles to Implementation (i.e. Problems with Land Acquisition, Permits, Funding, Local Opposition, Environmental Concerns, etc.)?*: No

Have You Received, or Do You Anticipate Receiving Federal Funding? No
(Example: Hazard Mitigation Grant Program)
*:

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: N/A
Design Completion*: 6/2022
Bid*: 9/22/2022
Construction Start*: 7/2023
Construction Completion*: 7/2024

Explain Additional Timeline Issues*:

None

Consulting Engineer*: Moore Engineering
Engineer Telephone Number*: 701-282-4692
Engineer Email*: josh.hassell@mooreengineeringinc.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Jessica Speith 10/24/2023
First Name Last Name Date

Address*: PO Box 10
Address Line 1
Address Line 2
Hillsboro North Dakota 58045-____
City State Zip Code

Telephone Number*: 701-636-5812

Sponsor Email*: tcwrd@co.trail.nd.us

I Certify That, to the Best of My Knowledge, the Provided Information is True and Accurate*: Yes

Authorized Individual*: Jessica Spaeth 10/24/2023
First Name Last Name Date

Title/Position/Authority*: Secretary-Treasurer

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If Yes, Add Boundary to Project Specific Map.*: No

[CLICK HERE to see examples.](#)

Project Specific Map 20243 Project Location Map 2023.pdf

Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community

***:**

Are You Seeking Department of Water Resources Cost-Share?* Yes

Are You Seeking Cost-Share for a Main Street Initiative Related Project?: No

Attach Completed**Comprehensive Plan:**

CLICK HERE for SFN 61801 Delineation of Costs Instructions and Current Version.

Delineation of Costs SFN 61801: 20243_Detailed_Project_Costs_Updated_20231024.xlsx

Type of Request: Construction

Signed Plans and Specifications For Bidding: 20243_Final_CO2_Drawings_DS_20230908.pdf

Water Supply Projects?: No

Rural Flood Control?: Yes

Approved Drainage Permit: DR_5928_SWID_ROD.pdf

Results Of Positive Assessment Vote: 20243 Vote Summary.pdf

Drain Reconstructions?: Yes

Sediment Analysis: 20243_SedimentAnalysis_20210817.pdf

Flood Recovery Property Acquisition?: No

Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of \$200,000 or More?: Yes

CLICK HERE for Economic Analysis Instructions.

Economic Analysis: 20243_EA_ConstructionUpdate_20231024.xlsx

Sovereign Land Permit, if Required:

DWR Construction Permit, if Required:

Conditional Letter of Map Revision (CLOMR), if Required:

Feasibility/Engineering Study for the Proposed Project: No

Photos of Problem/Issue:**Other Applicable** Yes**Document(s):****Other Applicable Document:** 20243_EconomicAnalysisMemo_20210816.pdf**Other Applicable Document:**

Blanchard-Norman 23-40 Construction Cost-Share Agreement 2022-04 - signed.pdf

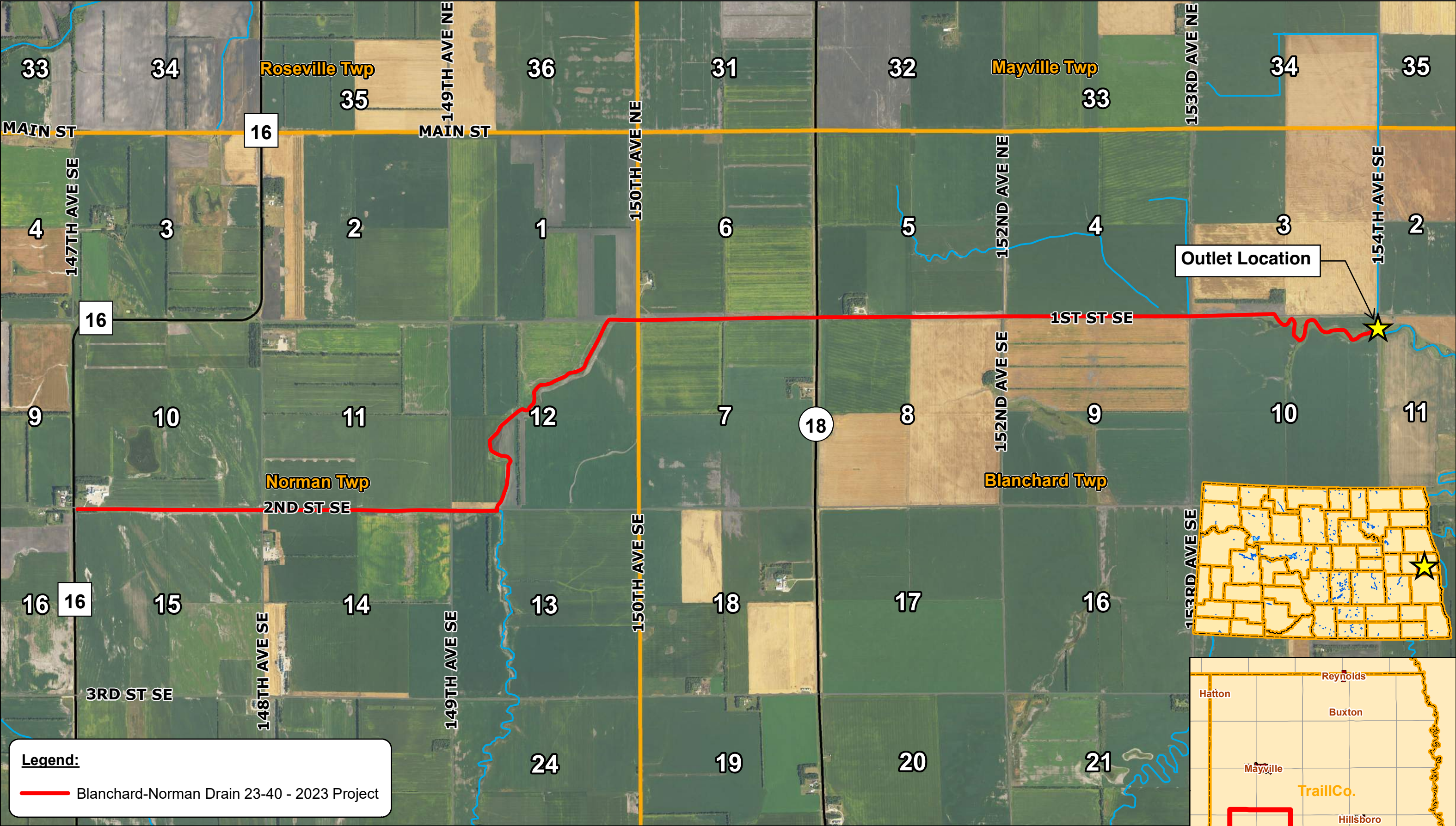
Other Applicable Document:

Cover Letter - Blanchard-Norman Drain 23-40 Cost Share Amendment.pdf

Sources

Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

Source	If Other, Specify Funding Source	State Fiscal Year 2			Total Cost	Type	Term	Interest Rate
		State Fiscal Year 1 July to June	July to June	Beyond Current Biennium				
Department of Water Resources Cost Share Construction		\$177,700.00 \$157,284	\$0.00	\$0.00	\$177,700.00 \$157,284		0.00	0.00
	Previous NDSWC Cost Share Agreement - Construction (4/2022)	\$1,130,002.00	\$0.00	\$0.00	\$1,130,002.00		0.00	0.00
	Previous NDSWC Cost Share Agreement - Final Design (10/2021)	\$85,545.00	\$0.00	\$0.00	\$85,545.00		0.00	0.00
	Local - Project Assessment District & County	\$2,528,040.00 \$2,634,001	\$0.00	\$0.00	\$2,528,040.00 \$2,634,001		0.00	0.00
		\$3,921,287.00	\$0.00	\$0.00	\$3,921,287.00			

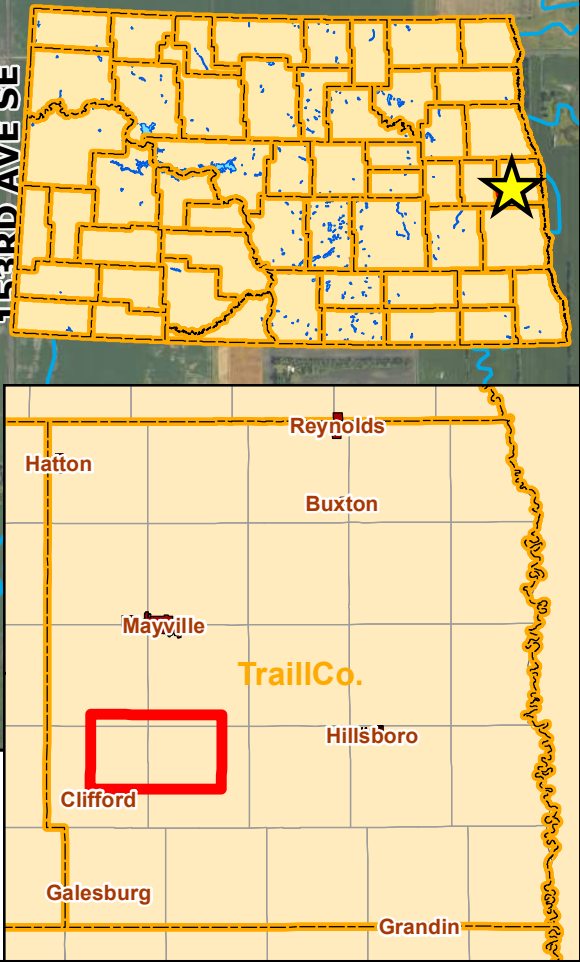
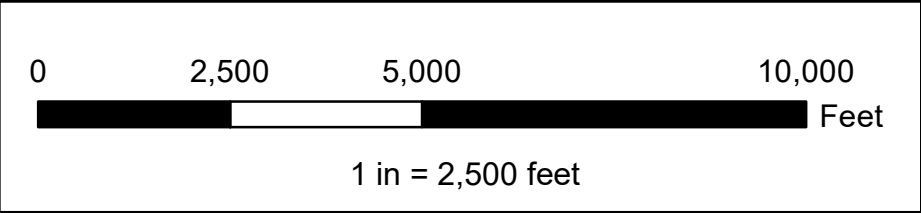
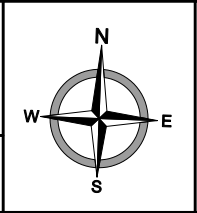


Legend:

Blanchard-Norman Drain 23-40 - 2023 Project

Blanchard-Norman Drain 23-40
Project Map
Trail County Water Resource District

Created By: NHT Date Created: 05/31/23 Date Saved: 10/24/23 Date Plotted: NEVER Date Exported: 10/24/23
Plotted By: nathan.rosen Parcel Date: XXXX/18 Aerial Image: 2022 County NAIP SIDS Elevation Data: Lidar
Horizontal Datum: NAD 1983 StatePlane North Dakota North FIPS 3301 Feet Vertical Datum: NAVD1988
T:\BaseData\ND\County\Trail\Trail Co WRD BaseMap.mxd





DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION

DWR Date Received : Month Day, Year

Project: Traill County Blanchard-Norman Drain 23-40 Improvements 2021
Sponsor: Traill County Water Resource District
Contact: Jessica Spaeth (Secretary-Treasurer)
Phone: 701-636-5812
Engineer: Nathan Trosen
Phone: 701-551-1060

Total Cost: \$ 3,921,287
Ineligible Cost: \$ 703,072
Eligible Cost: \$ 3,218,216
Local Cost: \$ 2,473,087

Date: October 24, 2023

Cost-Share \$
~~\$ 1,448,286~~

\$1,287,286

Project Type: Rural Flood Control - Drains, Channel, Diversion
Cost-share % ~~45%~~ **40%**

		Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Construction Costs								
1	2.9%	Mobilization	1	LS	82,000.00	\$ 82,000	45%	\$ 36,900
2	0.1%	Clearing & Grubbing	1	LS	4,100.00	\$ 4,100	45%	\$ 1,845
3	9.5%	Stripping Soil	7	Mile	38,500.00	\$ 269,500	45%	\$ 121,275
4	14.4%	Earthwork	199630.9	CY	2.04	\$ 406,854	45%	\$ 183,084
5	9.7%	Spoil Bank Leveling	8	Mile	34,234.38	\$ 273,875	45%	\$ 123,244
6	0.5%	Culvert - Removal (All Types & Sizes)	1520	LF	9.50	\$ 14,440	45%	\$ 6,498
7	0.4%	Demolition	3	EA	3,800.00	\$ 11,400	45%	\$ 5,130
8	27.0%	Corrugated Metal Pipe	4646	LF	164.15	\$ 762,656	45%	\$ 343,195
9	2.0%	Flap Gate	56	EA	1,017.50	\$ 56,980	45%	\$ 25,641
10	0.9%	Flared End Section - CSP	56	EA	472.82	\$ 26,478	45%	\$ 11,915
11	2.6%	Drop Structure	2	EA	37,000.00	\$ 74,000	45%	\$ 33,300
12	1.6%	Concrete	1	LS	46,000.00	\$ 46,000	45%	\$ 20,700
13	2.0%	Bedding	2660	CY	21.00	\$ 55,860	45%	\$ 25,137
14	7.0%	Rip-Rap	2870	CY	69.00	\$ 198,030	45%	\$ 89,114
15	0.4%	Riprap Filter Blanket	4650	SY	2.60	\$ 12,090	45%	\$ 5,441
16	0.7%	Gravel	690	CY	27.00	\$ 18,630	45%	\$ 8,384
17	0.3%	Geotextile Fabric	4000	SY	2.30	\$ 9,200	45%	\$ 4,140
18	2.0%	Rock Check	18	EA	3,090.56	\$ 55,630	45%	\$ 25,034
19	0.1%	Storm Water Management	1	LS	1,700.00	\$ 1,700	45%	\$ 765
20	0.1%	Traffic Control	1	LS	3,500.00	\$ 3,500	45%	\$ 1,575
21	0.9%	Material Testing	1	LS	25,000.00	\$ 25,000	45%	\$ 11,250
22	5.7%	Seeding	120	Acre	1,350.00	\$ 162,000	45%	\$ 72,900
23	0.0%				-	\$ -	45%	\$ -
24	0.0%				-	\$ -	45%	\$ -
25	0.0%				-	\$ -	45%	\$ -
26	0.0%				-	\$ -	45%	\$ -
		Construction Sub-Total				\$ 2,569,923	45%	\$ 1,156,465
	10.0%	Contingency				\$ 256,992	45%	\$ 115,647
	72.1%	Construction Total				\$ 2,826,916	45%	\$ 1,272,112
Engineering Costs								
27	8.2%	Project Inspection	1	NA	231,300.00	\$ 231,300	45%	\$ 104,085
28	0.0%		0		-	\$ -	45%	\$ -
29	0.0%		0		-	\$ -	45%	\$ -
30	0.0%		0		-	\$ -	45%	\$ -
31	0.0%		0		-	\$ -	45%	\$ -
32	0.0%		0		-	\$ -	45%	\$ -
33	0.0%		0		-	\$ -	45%	\$ -
	5.9%	Engineering Total				\$ 231,300	45%	\$ 104,085
Other Eligible Costs								
34	4.1%	Utilities	1	LS	160,000.00	\$ 160,000	45%	\$ 72,000
35	0.0%		1		-	\$ -	45%	\$ -
36	0.0%		1		-	\$ -	45%	\$ -
37	0.0%		1		-	\$ -	45%	\$ -
38	0.0%		1		-	\$ -	45%	\$ -
39	0.0%		1		-	\$ -	45%	\$ -
40	0.0%		1		-	\$ -	45%	\$ -
41	0.0%		1		-	\$ -	45%	\$ -
	4.1%	Other Eligible Total				\$ 160,000	45%	\$ 72,000
In-eligible Costs								
42	0.1%	Administrative	1		5,000.00	\$ 5,000	0%	\$ -
43	6.4%	Engineering To Date or Prior Approved	1		250,358.00	\$ 250,358	0%	\$ -
44	0.1%	Economic Analysis Development	1		5,000.00	\$ 5,000	0%	\$ -
45	1.5%	Legal Expenses	1		60,000.00	\$ 60,000	0%	\$ -
46	7.3%	Property Acquisitions & Easements	1		286,421.00	\$ 286,421	0%	\$ -
47	0.4%	Sediment Removal	9310	CY	1.75	\$ 16,293	0%	\$ -
48	1.3%	Fiscal	1		50,000.00	\$ 50,000	0%	\$ -
49	0.8%	Permits Related	1		30,000.00	\$ 30,000	0%	\$ -
	17.9%	Other Ineligible Total				\$ 703,072	0%	\$ -
	100.0%	Total				\$ 3,921,287		
		Eligible Total				\$ 3,218,216	45% 40%	\$ 1,448,197 \$1,287,286
Federal or State Funds That Supplant Costs								
						\$ -		
		Eligible Cost Total				\$ 3,218,216	45% 40%	\$ 1,448,197 \$1,287,286

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

\$1,287,286 (40% of project's eligible total)
-1,130,000 (cost-share approved on 4/12/22)
\$157,284

Economic Analysis Review

Project Title: Blanchard-Norman Drain No 23-40 Channel Improvements Date: October 25, 2023
 Description: Improvements to an existing legal drain in Traill County
 Project Type: _____

Project Overview

Project Area:	Blanchard-Norman Township		
County	Traill		
City	0		
Agricultural Acres Impacted	3,025		
Urban	No		
Population Served	-		
Cost	Construction	O & M	Total
Nominal	\$3,921,287	\$1,500/yr	\$3,997,787
PV (50 years)	\$3,873,466	\$39,210	\$3,912,677
\$ / Capita	#DIV/0!	#DIV/0!	#DIV/0!
\$ / Acre	\$1,280.48	\$12.96	\$1,293.45

Inputs

Protection Level:	1:10
Consumptive and Non-Consumptive Benefits:	NA
Detours:	NA

Results

Project Performance Metrics	Present Value		Average Annual	Notes
Benefit-to-Cost Ratio	0.887			
Net Benefits	-\$442,439		-\$15,600	
Payback Year	None			

Average Annual Damages

Rural				Urban			
	Difference	Without	With		Difference	Without	With
Cropland	86,092	98,525	12,433	Damage to structures at risk	\$0	\$0	\$0
Pasture	0	0	0	Value of other flood costs	\$0	\$0	\$0
\$	86,092	98,525	12,433				

Model Function

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor. The USACE discount rate was updated from 2.25% to the current 2.5%.

Explanation of Results

The costs of this project were updated from the previous request. The benefits of this project are about two-thirds agricultural and erosion of the drain itself. This project has a B/C ratio equal to 0.89. The average annual benefit of the project is estimated to be -\$15,600 with a total net benefit over 50 years of -\$442,439.

Other Comments

Glossary

PV - Present Value of all future costs or benefits adjusted to the current dollar value using an interest rate factor.
1:100 - The probability of an event. Commonly referred to as a one in one hundred year event. It is more accurately a one in one hundred chance of an event of a specific magnitude happening each individual year.
Nominal - Refers to the dollars spent or benefitted without adjusting for the time value of money or inflation.
Non-consumptive Benefits - These occur when an individual's use does not diminish the supply for other consumers of the benefit (e.g. bird watching).
Damage To Structures At Risk - Is the segregation of flood costs related to physical damage to structures.
Value of Other Flood Costs - All other costs associated with an event (e.g. flood fighting operations, time delays, relocations, etc).



Traill County Water Resource District
102 1st St SW · PO Box 10
Hillsboro, ND 58045

October 24th, 2023

ND Department of Water Resources
ATTN: Cost Share Administrator
900 East Boulevard Avenue
Bismarck ND 58505-0850

Re: Blanchard-Norman Drain No. 23-40 Improvements Project – Construction Cost Share
Amendment Request
Norman & Blanchard Townships, Traill County, ND

The Traill County Water Resource District (the “WRD”) is requesting additional cost share for the Blanchard-Norman Drain No. 23-40 Improvements Project (the “Project”) due to increased costs that have occurred since the original construction cost share agreement in April of 2022.

The Project is an improvement to an existing legal drain which includes deepening and widening the existing channel and improving drop structures and culvert crossings to meet current standards. The design will allow for additional capacity and allow adjacent cropland to drain more efficiently.

Since April 2022 the Project was bid and the construction costs came in nearly 20% higher than originally estimated. Additionally, due to increased costs for wetland mitigation, a portion of the Project had to be redesigned to ensure wetland compliance. Specifically, this involved construction off channel berms outside of jurisdictional wetlands to provide the necessary protection to the adjacent properties. To construct these upland berms material had to be hauled from over two miles further up the Project resulting in an additional increase in construction costs. Alternative options were explored but ultimately the construction of upland berms was the most cost-effective option.

The proposed amendment would include the additional costs from the bids received and updated design. The original cost share agreement, dated 4/17/22, totaled \$1,130,002. The updated 2023 eligible costs is now \$1,448,200 and the updated benefit/cost ratio is 0.903. Therefore, with this proposed amendment the WRD is respectfully requesting an additional \$177,700 in construction cost share funds.

All supporting documents have been uploaded to WebGrants. If you have any questions, please feel free to contact me or our Project Engineer, Nathan Trosen, Moore Engineering, Inc., at 701-282-4692.

Sincerely,

TRAILL COUNTY WATER RESOURCE DISTRICT

Jessica Spaeth
Secretary-Treasurer

Phone: 701.636.5812
Email: tcwrd@co.traill.nd.us



444 Sheyenne Street
Suite 301
West Fargo, ND 58078

P: 701.282.4692
F: 701.282.4530



Memorandum

Date: August 16, 2021
To: North Dakota State Water Commission
From: Joshua Hassell, PE, CFM, Andrew Smith, EI, CFM
Subject: Traill County Blanchard-Norman Drain No. 23-40 Improvement Project Economic Analysis

Introduction

This memorandum is provided as background information to supplement the economic analysis for the Traill County Blanchard-Norman Drain No. 23-40 Improvement Project (the Project) as required by the Department of Water Resources (the DWR) Cost-Share policy. The Project is intended to improve channel stability and conveyance throughout the existing drain by deepening, widening, and straightening the channel in a number of areas as well as improving several crossings and drop structures. The existing channel gradient varies considerably from over 0.3% in some upstream areas to approximately 0.05% in the downstream natural channel portion of the legal drain with varying side slopes from 2:1 to 4:1. The proposed project includes sizing and improving crossing and drop structures, flattening the cross section side slopes to 4H:1V, reducing the channel gradient in many locations and installing permanent rock checks to reduce channel velocities.

The purpose of the Project is to improve agricultural drainage, address overland flow issues, and reduce flooding and standing water without adverse downstream impacts to structures. Deepening and widening the channel will allow for more efficient drainage with greater channel capacities. The risk of adverse impacts downstream will be addressed by larger channel geometry, flatter channel grades and permanent rock checks in addition to the improved crossings.

Data Sources

The economic analysis was completed utilizing the spreadsheet "Economic Analysis Worksheet for Evaluating Flood Control and Conveyance Projects Version 1.2021-2" prepared by the North Dakota State Water Commission. Existing channel geometry was based on survey data collected by Moore Engineering in 2018. Inundation area was plotted utilizing LiDAR collected in 2008. Hydrologic Data was obtained from the preliminary Project design USGS regression hydrology (Williams-Sether, 2015).

Assumptions and Methodology

Impacts to cropped land were analyzed on a crossing by crossing basis. Inundated areas were calculated by utilizing headwater elevations for the existing and project conditions for all improved culvert crossings and crossing headwater elevations were calculated utilizing CulvertMaster software. The project area was analyzed for the 2-, 5-, 10-, 25-, 50-, and 100-year rainfall events. For 25-year events and lower, it was assumed that there would be no inundation with project conditions, as project crossings were designed to 0.5 ft of headwater impact during the 10- year event and channel berms will be designed to contain the 25-year flow. It was assumed that for events greater than a 10-year, that the inundated area would be based on

the headwater at the downstream crossing in each section for each event. The 1st St SE crossing and the 150th Ave SE crossing breakout waters flow overland into the watersheds of separate legal drains. These crossings were analyzed by calculating breakout flow rates for each event and utilizing the results as the input for analyzing the headwater impact and inundated areas at the next downstream culvert. A summary of design flows and calculated headwaters for analyzed events and locations are shown below in Tables 1 and 2.

Table 1 - Existing Conditions Hydrology

Existing						2 Year		5 Year		10 Year		25 Year		50 Year		100 Year	
Crossing	Location	Sta	Configuration	OT/BO elev	Location	Q	HW	Q	HW	Q	HW	Q	HW	Q	HW	Q	HW
1st St SE	Sec 3/10	115+15	(3) - 81" x 59"	955.8	Contained	155	952.09	390	954.08	600		908		1159		1421	
			42"	955.2	Breakout into Mayville No 39					30	955.79	267	956.22	320	956.56	602	956.92
153rd Ave SE	Sec 3/4	139+72	(2) - 137" x 87"	956.00	Field swale LP	125	956.28	312	958.2	476	959.35	715	960.67	907	961.53	1106	962.32
Approach	Sec 4/5	231+00	142" x 91"	970.5	North berm LP	115	966.56	286	968.79	435	970.42	652	971	825	971.32	1003	971.6
3rd Ave NW	Sec 5/6	244+99	(3) - 7' x 4'	969	North berm LP	115	970.22	286	971.99	434	973.32	650	974.49	823	974.88	1000	975.23
150th Ave SE	Sec 1/6	295+11	(2) - 54"	978.8	North berm LP	106	976.13	262	979.09	398	979.9	594	980.44	749	980.75	909	981.04
			Weir	973.5	WS breakout			3		139	973.81	360	974.08	534	974.25	715	974.4
			30"	972.4	Breakout Murray No 17			3		139	972.76	360	973.11	534	973.33	715	973.53
1st St SE	Sec 1/12	303+83	81" x 59"	983.6	South berm LP	92	976.6	228	980.17	344		510	984.13	641	984.34	775	984.52
			30" + 18"	974.4	Breakout into Sec 7							206	974.82	350	975.05	495	975.24
2nd St SE	Sec 12/13	379+53	(2) - 66"	990.8	At Crossing OTP	93	986.94	228	988.85	345	990.98	513	992.32	645	992.73	779	993.11
Approach	Sec 13/14	392+33	(2) - 36"	998.8	Road LP 1/2 mile S of crossing	79	998.32	192	999.62	289	1000.18	425	1000.77	530	1000.93	636	1001.25
Approach	Sec 15	460+63	(2) - 30"	1034.5	South berm LP	51	1032.15	122	1034.87	180	1035.09	261	1035.31	322	1035.44	382	1035.55





 - Flow breaks out of channel
 - Flow contained in channel

Table 2 - Proposed Conditions Hydrology

Proposed						2 Year		5 Year		10 Year		25 Year		50 Year		100 Year	
Crossing	Location	Sta	Configuration	OT/BO elev	Location	Q	HW	Q	HW	Q	HW	Q	HW	Q	HW	Q	HW
1st St SE	Sec 3/10	115+15	(2) - 112" x 75"	958.27	Contained	155	953.85	390	955.09	600	957.46	908		1159		1421	
			42"	955.2	Breakout into Mayville No 39								955.63		956.4		956.75
153rd Ave SE	Sec 3/4	139+72	(2) - 95" x 67"	961.0	Road Crossing LP	125	957.42	312	959.37	476	960.71	715	961.59	1106	961.92	1106	962.21
Approach	Sec 4/5	231+00	Removed	970.2	North Min Berm	115		286		435		652		825		1003	
3rd Ave NW	Sec 5/6	244+99	(3) - 7' x 4' + 36"	974	North berm LP	115	968.88	286	970.31	434	971.36	650	972.8	823	974.16	1000	974.6
150th Ave SE	Sec 1/6	295+11	(2) - 95" x 67"	978.9	North berm LP	106	973.09	262	974.7	398	975.93	594	978.02	749	979.6	909	980.15
			Weir	973.5	WS breakout									66	973.68	226	973.9
			30"	972.4	Breakout into Murray No. 17									66	972.59	226	972.92
1st St SE	Sec 1/12	303+83	(2) - 95" x 67"	983.6	South berm LP	92	975.53	228	977.3	344	978.69	510	980.89	641	982.82	775	983.9
			30" + 18"	974.4	Breakout into Sec 7									89			974.55
2nd St SE	Sec 12/13	379+53	(2) - 95" x 67"	990.8	At Crossing OTP	93	986.26	228	987.79	345	990.17	513	991.93	645	992.51	779	992.92
Approach	Sec 13/14	392+33	(2) - 87" x 63"	1000.43	Min Berm at crossing	79	997.95	192	999.25	289	1000.4	425		530		636	
			Weir	998.8	Road LP 1/2 mile S of crossing							143	999.76	422	1000.78	528	1001.1
Approach	Sec 15	460+63	(2) - 64" x 43"	1034.5	South berm LP	51	1031.18	122	1032.54	180	1034.07	261	1034.96	322	1035.18	382	1035.35

 - Flow breaks out of channel
 - Flow contained in channel

Channel erosion and bank erosion considerations were also included with the analysis. The U.S. Bureau of Reclamation's Drainage Manual states a maximum permissible velocity of 4 feet per second for open channel drains constructed in clay soils. The CulvertMaster analysis of existing crossings showed downstream channel velocities over 4 fps for almost all crossings and events. Many of the existing culvert crossing are undersized and include no erosion protection upstream or downstream and many areas of erosion and scouring are evident. The project includes 10 feet of upstream riprap erosion protection and 30 feet of downstream riprap armoring with a settling basin for each crossing, 54 feet of rip rap protection at each drop structure, and several permanent rock checks. New areas of riprap were factored into the feet of erosion for all events as the riprap armoring would remove those erosion impacts for all project condition events. Additionally, the existing and proposed channel was analyzed in areas of existing erosion and high channel velocities. Existing channel areas of evident erosion were considered and channel velocities for all considered events were calculated. Events in these areas that produce velocities 4 or greater were taken as areas of erosion. Tables 3 and 4 below show calculated values utilized in the analysis and their location along the project alignment.

Table 3 - Project Conditions Riprap Calculations

Riprap Erosion Protection			
	Qty	feet	total
Crossings	11	40	440
Drop Structures	3	54	162
Permanent Rock Checks	12	15	180
Total			782

Table 4 - Channel Velocity and Erosion Calculations

Bank and Channel Erosion					
Location	Total Length	Event	Ex Velocities	Proposed Velocities	Feet of Erosion
Section 4	5255	2	2.6	1.8	0
		5	3.3	2.2	0
		10	3.7	2.5	0
		25	4.1	2.8	1312
		50	4.4	2.9	2625
		100	4.6	3.1	5255
Section 12	7570	2	2.5	2.1	0
		5	3.2	2.7	0
		10	3.5	3	0
		25	3.9	3.3	0
		50	4.1	3.5	2625
		100	4.3	3.7	7570
Section 15	1250	2	2.6	2.1	0
		5	3.3	2.7	0
		10	3.7	3	0
		25	4.1	3.4	312
		50	4.6	3.6	625
		100	4.8	3.7	1250

Finally, existing farmsteads were evaluated utilizing the headwater calculations completed for the inundated cropland areas in the vicinity of the project. For the purposes of the analysis a total of three farmsteads were considered impacted as shown in the economics analysis spreadsheet.

Results

The calculated Benefit to Cost Ratio from the NDSWC spreadsheet is 1.150. Included are the NDSWC project overview and results summary from the NDSWC Economic Analysis Spreadsheet.

October 24th, 2023 Note:

The NDSWC spreadsheet submitted for the construction cost share amendment request is identical to the EA submitted for previous cost share requests with the following exceptions:

1. Updated project costs totaling \$3,921,287.
2. Updated Total Acres Flooded column for "With Project" scenario to reflect the updated project design.

These updates reduced the benefit/cost ratio to 0.903.



BLANCHARD-NORMAN DRAIN NO. 23-40 ASSESSMENT DISTRICT TRAIL COUNTY WATER RESOURCE DISTRICT

Voting Ended - July 19th, 2021 @ 5:00 pm

SUMMARY OF VOTE ON PROJECT

Total Possible Ballots	152		
Total Ballots Returned	96	63.16%	of total possible ballots
Total Ballots Returned	96		
Ballots For Project	57	59.38%	of ballots received
Ballots Against Project	39	40.63%	of ballots received
<hr/>			
Total Possible Votes	\$1,779,294.51		
Total Votes Received	\$1,121,095.97	63.01%	of total possible votes
Total Votes Received	\$1,121,095.97		
Votes For Project	\$632,678.03	56.43%	of votes received
Votes Against Project	\$488,417.95	43.57%	of votes received

MOORE ENGINEERING, INC.


NORTH Dakota | Water Resources

Be Legendary.

Commission Date : 4/12/22
Commission Action : Approved (cfitzgerald)

MEMORANDUM

Approved cost-share participation of \$1,130,002 at 45 percent of eligible costs with total not to exceed \$1,215,547.

TO: Governor Doug Burgum
Members of the State Water Commission
FROM: Andrea Travnicek, Ph.D., Secretary 
SUBJECT: NDSWC Cost-Share Request – Traill County Water Resource District
Blanchard-Norman Drain 23-40 Improvements - Construction
DATE: March 29, 2022

Background & Description

The Traill County Water Resource District (Sponsor) is requesting cost-share for their Blanchard-Norman Drain 23-40 Improvements - Construction (Project). The Project is improvements to approximately 9.4 miles of Blanchard-Norman Drain 23-40 to include deepening and widening of the drain and culvert replacements. The purpose of the Project is to increase capacity of the drain to provide rural flood protection. The Project is located approximately 6.5 miles south of Mayville, North Dakota.

Supplemental Information

Water Development Plan (Priority / Page)	Low / 41
Assessment Vote Results	56%
Drain Permit	#5928
Sediment Analysis	Yes
Benefit-Cost Ratio	1.08

Schedule

Task	Dates
Study	N/A
Design	April 2022
Bid	May 2022
Construction	June 2022
Completion	June 2023

Cost-Share Funding Summary

	Preconstruction	Construction	Total	Approved	Recommend
Noneligible Cost	\$0	\$771,869	\$771,869		
Eligible Cost	\$190,100	\$2,511,117	\$2,701,217		
Total	\$190,100	\$3,282,986	\$3,473,086	\$190,100	
Cost-Share 45% (Requested)	\$85,545	\$1,130,002	\$1,215,547	\$85,545	\$1,130,002

This project meets requirements of the Water Commission's cost-share policy. Therefore, I recommend approval of this request by the Traill County Water Resource District for state cost participation of \$1,130,002 at 45 percent of eligible costs for the Blanchard-Norman Drain 23-40 Improvements - Construction project, with the total not to exceed \$1,215,547. This approval is contingent on available funding.

AT:bn/1241



1081895 - Valley City Little Dam Improvement Project

Application Details

Funding Opportunity:	22356-State Fiscal Year 2023-2024 Infrastructure Request	Initial Submit Date:	Oct 24, 2023 3:05 PM
Funding Opportunity Due Date:	Jun 30, 2024 3:00 PM	Initially Submitted By:	Mike Opat
Program Area:	Funding for Infrastructure in ND - FIND	Last Submit Date:	
Status:	Under Review	Last Submitted By:	
Stage:	Final Application		

Contact Information

Primary Contact Information

Active User*:	Yes
Type:	External User
Name:	Salutation Mike First Name
Middle Name	Opat Last Name
Title:	Senior Engineer
Email*:	mopat@houstoneng.com
Address*:	1401 21st Ave N

Organization Information

Status*:	Approved
Name*:	Barnes County Water Resource District
Organization Type*:	Political Subdivision
Tax Id:	45-6002198
Organization Website:	
Address*:	PO Box 306

Fargo, ND 58102	Valley City North Dakota
City	City State/Province
North Dakota 58102	58072-0306
State/Province Postal Code/Zip	Postal Code/Zip
Phone*: 701-499-9473 Ext.	Phone*: 701-845-0683 Ext.
Phone	###-###-####
###-###-####	
Fax: ###-###-####	Fax: ###-###-####
Comments:	Benefactor:
	Vendor ID:
	PeopleSoft 0000042386
	Supplier ID:
	Comments:
	Location MAIN
	Code:
	SAM.gov
	Entity ID:
	SAM.gov
	Name:
	SAM.gov
	Entity ID
	Expiration
	Date:
	State Issued
	ID:
	Category #:
	Year Begin:
	Year Closed:
	NCES#:

Restricted 0.00%
Indirect Cost
Rate:

Unrestricted 0.00%
Indirect Cost
Rate:

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: Valley City Little Dam Improvement Project

Sponsor(s)*: Barnes County Water Resource District

County*: Barnes

City*: Valley City

Description of Request*: Updated (previously submitted)

If Study, What Type:

If Project/Program, What Type: DAM Safety/EAP

Jurisdictions/Stakeholders Involved*:

Barnes County Water Resource District
City of Valley City
Barnes County

Describe the Problem*:

The Barnes County WRD is the owner of the Valley City Little Dam (the "Dam"). The Dam is considered a low head, high hazardous dam. The Dam ranks high on the NDSWC's prioritization list. The Dam was originally constructed by the CCC in 1937. Over time, maintenance and repair projects have been completed to keep the Dam operational. The SWC has inspected the Dam numerous times over the last twenty years. Some of the more recent SWC inspections identify issues with the abutments. In addition to the issues identified in the SWC inspection reports, and even more importantly, several human deaths have been documented at this dam site just in the last decade. The most recently documented deaths were in 2012 and 2014.

**Provide Project Details,
Objectives and Solutions to
Address Problem*:**

The project's intent is to remove the hazardous roller effect to mitigate the public dangers associated with low head dam roller effects by constructing an arched rock riffle.

For this project,

**Choose City, County, Water
District or Other*:** County

**What is the Current
Estimated Population?*** 10800

For this project,

**What is the Benefited
Population?*** 10800

**Have Assessment Districts
Been Formed?*** N/A

**Have Land or Easements
Been Acquired?*** Yes

**Are There Any Properties
with Wells, Drain Fields, or
Holding Tanks Within the
Project Area That Will Benefit
from the Project?*** No

**Are There Any Road
Improvements Included as
Part of the Project?*** No

**Have You Applied For Any
Federal Permits?*** Yes

**If Yes or Ongoing, Please
Explain
(include type/number):**

The US Army Corps of Engineers has authorized the project under Nationwide Permits 13, 27, and 53. The required SHPO approvals have also been obtained.

Have You Been approved for any Federal Permits?: Yes

**If Yes or Ongoing, Please Explain
(include type/number):**

The US Army Corps of Engineers has authorized the project under Nationwide Permits 13, 27, and 53. The required SHPO approvals have also been obtained.

Have You Applied for any State Permits?* Yes

**If Yes or Ongoing, Please Explain
(include type/number):**

Applications have been submitted for a Conditional Water Permit, a sovereign lands permit, and a Construction Permit.

Have You Been Approved for any State Permits?: Yes

**If Yes or Ongoing, Please Explain
(include type/number):**

The Conditional Water Permit and the Construction Permit have been approved. Per DWR staff, the sovereign lands permit is expected to be issued any day.

Have You Applied for any Local Permits?* No

**If Yes or Ongoing, Please Explain
(include type/number):**

Do You Expect Any Obstacles to Implementation (i.e. Problems with Land Acquisition, Permits, Funding, Local Opposition, Environmental Concerns, etc.)?* No

Have You Received, or Do You Anticipate Receiving Federal Funding? No
(Example: Hazard Mitigation Grant Program)
*:

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: 2016

Design Completion*: 2023

Bid*: 2024

Construction Start*: 2024

Construction Completion*: 2025

Explain Additional Timeline Issues*:

The project will be let for bids as soon as SWC funding is in place. Construction completion will depend on weather conditions and water levels in the Sheyenne River.

Consulting Engineer*: Mike Opat

Engineer Telephone Number*: 701-499-9873

Engineer Email*: mopat@houstoneng.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Heather Manson 10/24/2023
First Name Last Name Date

Address*: PO Box 306
Address Line 1
Address Line 2
Valley City North Dakota 58072-0000
City State Zip Code

Telephone Number*: 701-845-8508

Sponsor Email*: hmanson@barnescounty.us

I Certify That, to the Best of My Knowledge, the Provided Information is True and Accurate*: Yes

Authorized Individual*: Heather Manson 10/24/2023
First Name Last Name Date

Title/Position/Authority*: Secretary-Treasurer

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If Yes, Add Boundary to Project Specific Map.*:

No

[CLICK HERE to see examples.](#)

Project Specific Map

Little Dam_ProjectMap_102423.pdf

Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community
*:

Are You Seeking Department of Water Resources Cost-Share?*

Yes

Are You Seeking Cost-Share for a Main Street Initiative Related Project?:

No

**Attach Completed
Comprehensive Plan:**

CLICK HERE for SFN 61801 Delineation of Costs Instructions and Current Version.

Delineation of Costs SFN 61801: sfn_61801_delineation_of_cost_Little Dam Construction.xlsx

Type of Request: Construction

Signed Plans and Specifications For Bidding: 6139-0006 Plans-Specs_SWC submittal_Signed.pdf

Water Supply Projects?: No

Rural Flood Control?: No

Drain Reconstructions?: No

Flood Recovery Property Acquisition?: No

Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of \$200,000 or More?: No

Sovereign Land Permit, if Required: Little Dam - Sovereign Lands signed 2022-10-03.pdf

DWR Construction Permit, if Required: Little Dam- Construction Permit signed 20221003.pdf

Conditional Letter of Map Revision (CLOMR), if Required:

Feasibility/Engineering Study for the Proposed Project: No

Photos of Problem/Issue:

Other Applicable Document(s):

Other Applicable Document:

Other Applicable Document:

Other Applicable Document:




Sources

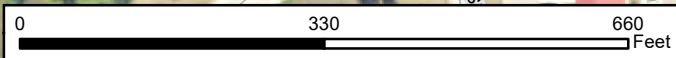
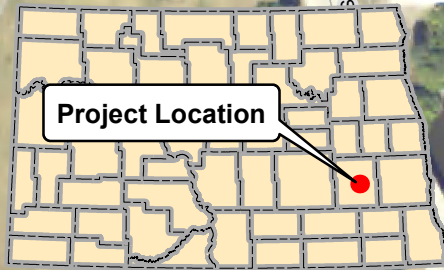
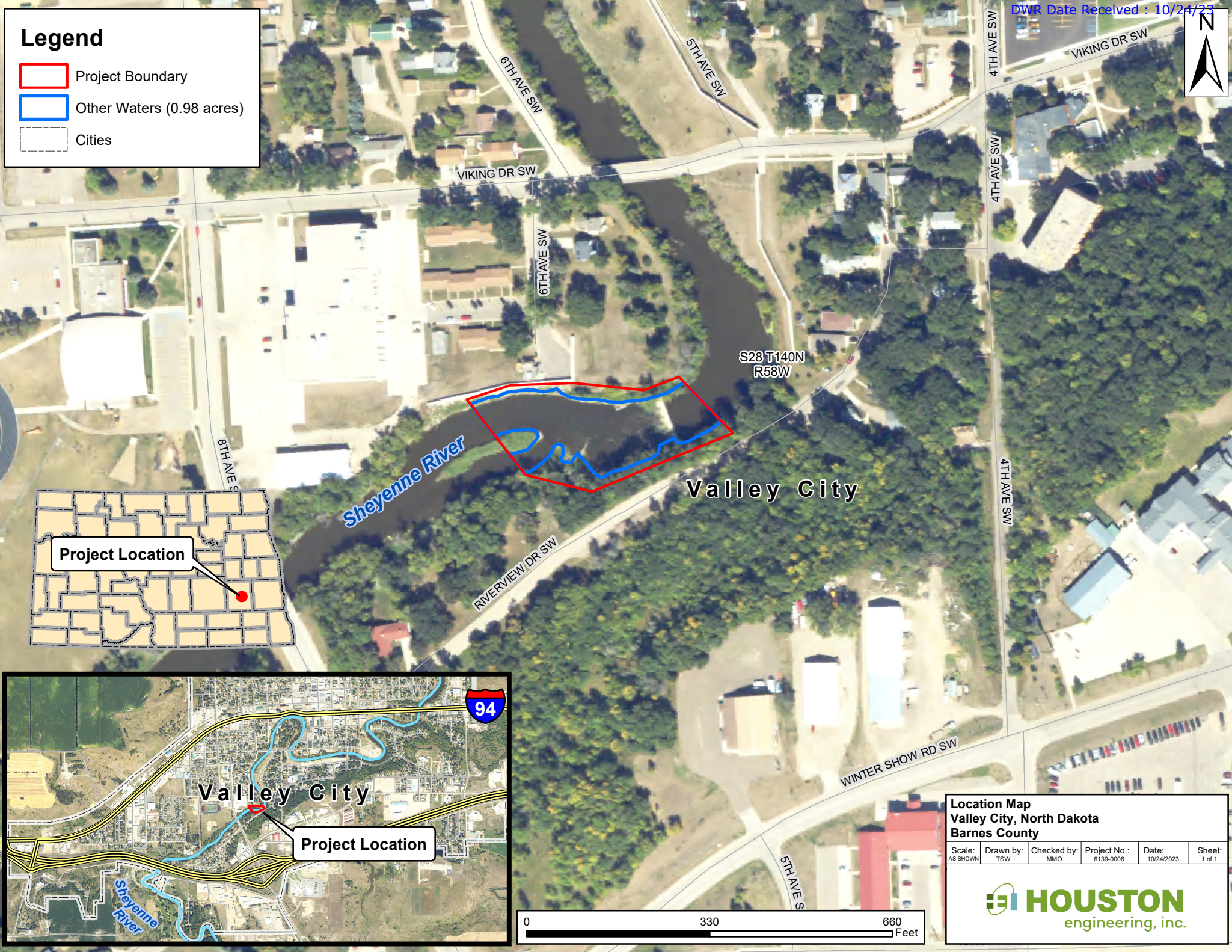
Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

Source	If Other, Specify Funding Source	State Fiscal Year 1 July to June	State Fiscal Year 2 July to June	Beyond Current Biennium	Total Cost	Type	Term	Interest Rate
Department of Water Resources Cost Share Construction		\$102,000.00	\$814,500.00	\$0.00	\$916,500.00	Grant	0.00	0.00
Other	Barnes County	\$0.00	\$333,500.00	\$0.00	\$333,500.00	Grant	0.00	0.00
		\$102,000.00	\$1,148,000.00	\$0.00	\$1,250,000.00			




Legend

-  Project Boundary
-  Other Waters (0.98 acres)
-  Cities



Location Map
Valley City, North Dakota
Barnes County

Scale: AS SHOWN	Drawn by: TSW	Checked by: MMO	Project No.: 6139-0006	Date: 10/24/2023	Sheet: 1 of 1
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 **HOUSTON**
engineering, inc.

H:\JBN6100\6139\6139_0006 Little Dam Repurposing\GIS\TSW ProjectMap_2023_10_24.mxd



DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (02/2023)

DWR Date Received : Month Day, Year

Project: Valley City Little Dam Improvement Project-Construction
Sponsor: Barnes County Water Resource District
Contact: Hather Manson
Phone: 710-845-8508
Engineer: Mike Opat, Houston Engineering
Phone: 701-499-9473

Total Cost : \$ 1,250,000
Ineligible Cost : \$ 28,000
Eligible Cost : \$ 1,222,000
Local Cost : \$ 333,500

Date: October 24, 2023

Cost-Share \$
\$ 916,500

Preconstruction : \$ 102,000
Construction : \$ 814,500

Project Type:

Cost-share %

Dam - Low Head Roller Effect

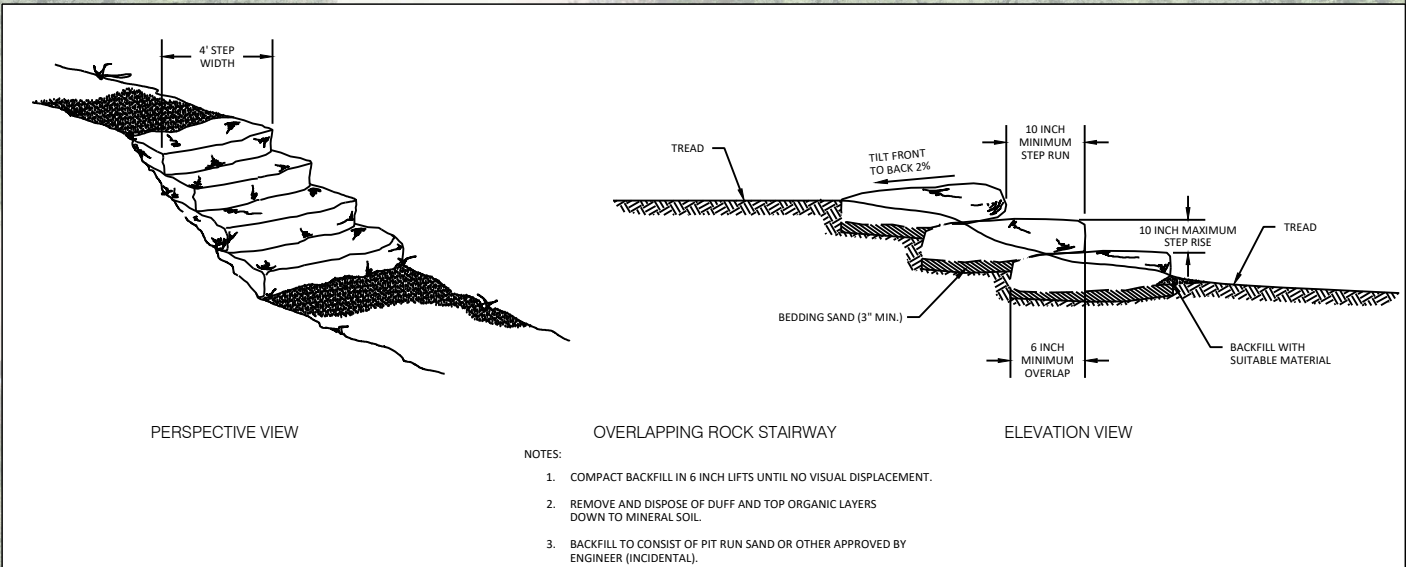
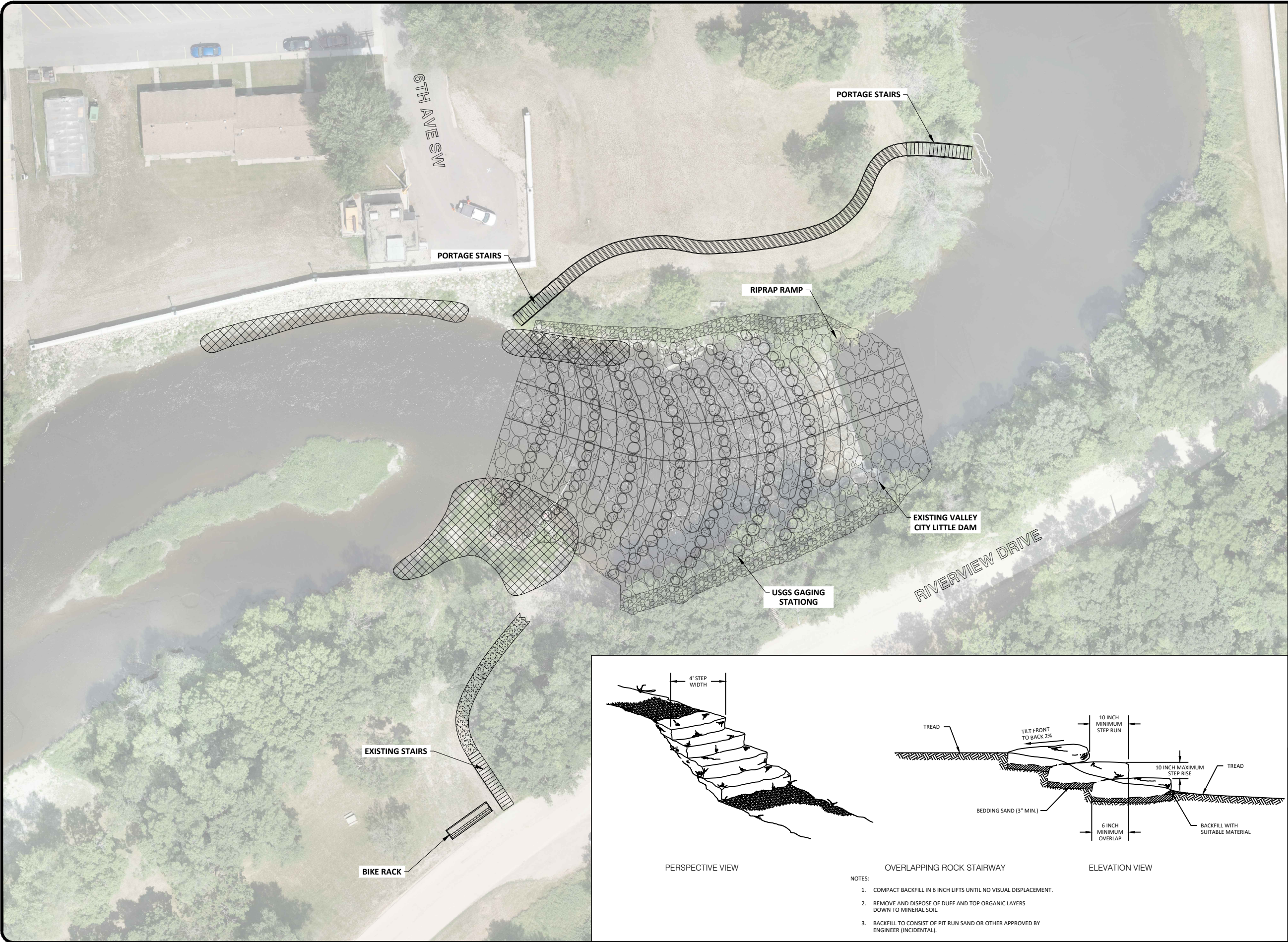
75%

		Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Construction Costs								
1	4.0%	Mobilization	1	LS	40,000.00	\$ 40,000	75%	\$ 30,000
2	0.0%	Bonding	0		-	\$ -	75%	\$ -
3	0.0%	Insurance	0		-	\$ -	75%	\$ -
4	2.5%	Erosion Control	1	LS	25,000.00	\$ 25,000	75%	\$ 18,750
5	2.3%	Clearing & Grubbing	1	LS	23,000.00	\$ 23,000	75%	\$ 17,250
6	0.1%	Stripping Soil	120	CY	10.00	\$ 1,200	75%	\$ 900
7	9.9%	Dewatering	1	LS	100,000.00	\$ 100,000	75%	\$ 75,000
8	4.8%	Demolition	1	LS	48,882.00	\$ 48,882	75%	\$ 36,662
9	6.5%	Common Excavation	3280	CY	20.00	\$ 65,600	75%	\$ 49,200
10	9.5%	Materials - Fill	1600	CY	60.00	\$ 96,000	75%	\$ 72,000
11	14.3%	Gravel	1800	TON	80.00	\$ 144,000	75%	\$ 108,000
12	22.7%	Riprap	2700	TON	85.00	\$ 229,500	75%	\$ 172,125
13	11.6%	Boulders	180	EA	650.00	\$ 117,000	75%	\$ 87,750
14	2.5%	Other Rock	280	CY	90.00	\$ 25,200	75%	\$ 18,900
15	0.1%	Earthwork	120	CY	10.00	\$ 1,200	75%	\$ 900
16	0.2%	Seeding	1	LS	1,600.00	\$ 1,600	75%	\$ 1,200
17	0.0%		0		-	\$ -	75%	\$ -
18	0.0%		0		-	\$ -	75%	\$ -
19	0.0%		0		-	\$ -	75%	\$ -
20	0.0%		0		-	\$ -	75%	\$ -
21	0.0%		0		-	\$ -	75%	\$ -
22	0.0%		0		-	\$ -	75%	\$ -
23	0.0%		0		-	\$ -	75%	\$ -
24	0.0%		0		-	\$ -	75%	\$ -
25	0.0%		0		-	\$ -	75%	\$ -
26	0.0%		0		-	\$ -	75%	\$ -
		Construction Sub-Total				\$ 918,182	75%	\$ 688,637
		Contingency				\$ 91,818	75%	\$ 68,864
	10.0%	Construction Total				\$ 1,010,000	75%	\$ 757,500
Preconstruction Costs								
27	7.5%	Final Design	1	NA	76,000.00	\$ 76,000	75%	\$ 57,000
28	2.0%	Geotechnical Investigations	1	NA	20,000.00	\$ 20,000	75%	\$ 15,000
29	3.0%	Surveying	1	NA	30,000.00	\$ 30,000	75%	\$ 22,500
30	1.0%	Final Design Surveying	1	NA	10,000.00	\$ 10,000	75%	\$ 7,500
31	0.0%		0		-	\$ -	75%	\$ -
	10.9%	Preconstruction Total				\$ 136,000	75%	\$ 102,000
Construction Engineering Costs								
32	2.5%	Construction Contract Management	1	NA	25,000.00	\$ 25,000	75%	\$ 18,750
33	0.5%	Construction Staking	1	NA	5,000.00	\$ 5,000	75%	\$ 3,750
34	4.6%	Project Observation	1	NA	46,000.00	\$ 46,000	75%	\$ 34,500
35	0.0%		0		-	\$ -	75%	\$ -
36	0.0%		0		-	\$ -	75%	\$ -
	6.1%	Construction Engineering Total				\$ 76,000	75%	\$ 57,000
Other Eligible Costs								
37	0.0%	Miscellaneous	0		-	\$ -	75%	\$ -
38	0.0%		0		-	\$ -	75%	\$ -
39	0.0%		0		-	\$ -	75%	\$ -
40	0.0%		0		-	\$ -	75%	\$ -
41	0.0%		0		-	\$ -	75%	\$ -
	0.0%	Other Eligible Total				\$ -	75%	\$ -
In-eligible Costs								
42	0.0%	Administrative	1	NA	500.00	\$ 500	0%	\$ -
43	0.8%	Legal Expenses	1	NA	10,000.00	\$ 10,000	0%	\$ -
44	0.2%	Property Acquisitions	1	NA	2,500.00	\$ 2,500	0%	\$ -
45	1.2%	Permits Related	1	NA	15,000.00	\$ 15,000	0%	\$ -
	2.2%	Other Ineligible Total				\$ 28,000	0%	\$ -
100.0%		Total				\$ 1,250,000		
		Eligible Total				\$ 1,222,000	75%	\$ 916,500
Federal or State Funds That Supplement Costs								
		Eligible Cost Total				\$ 1,222,000	75%	\$ 916,500

*Preconstruction was approved on 10/14/2021

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

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This document was originally issued and sealed by
ERIK S. JONES
Registration Number
PE-4614
on 10-24-23 and the original document is stored at
Houston Engineering Inc.

No.	Revision	Date	By



Drawn by PAO	Date 10-24-23
Checked by ESJ	Scale AS SHOWN

VALLEY CITY LITTLE DAM REMEDIATION
CITY OF VALLEY CITY
BARNES COUNTY, NORTH DAKOTA

PUBLIC ACCESS
PROJECT NO. 6139-0006

SHEET
4

1081713 - Westfield Watermain Replacement

Application Details

Funding Opportunity:	22356-State Fiscal Year 2023-2024 Infrastructure Request
Funding Opportunity Due Date:	Jun 30, 2024 3:00 PM
Program Area:	Funding for Infrastructure in ND - FIND
Status:	Under Review
Stage:	Final Application
Initial Submit Date:	Oct 17, 2023 11:43 AM
Initially Submitted By:	Veronica Meyer
Last Submit Date:	Oct 25, 2023 4:22 PM
Last Submitted By:	Veronica Meyer

Contact Information

Primary Contact Information

Active User*:	Yes
Type:	External User
Name:	Salutation Veronica Middle Name Meyer First Name Last Name
Title:	Senior Project Engineer
Email*:	veronica.meyer@minotnd.gov
Address*:	po Box 5006

Phone*:	Minot North Dakota 58702-5006 City State/Province Postal Code/Zip 701-857-4140 Ext. Phone ###-###-####
Fax:	###-###-####
Comments:	

Organization Information

Status*:	Approved
Name*:	City of Minot
Organization Type*:	Municipal Government
Tax Id:	
Organization Website:	

Address*: 1025 31st St. SE
PO Box 5006

Minot North Dakota 58701-____
City State/Province Postal Code/Zip

Phone*: (701) 857-4140 Ext.
#####

Fax: ### ### #####

Benefactor:

Vendor ID:

PeopleSoft Supplier ID:

Comments:

Location Code:

SAM.gov Entity ID:

SAM.gov Name:

SAM.gov Entity ID Expiration Date:

State Issued ID:

Category #:

Year Begin:

Year Closed:

NCES#:

Restricted Indirect Cost Rate: 0.00%

Unrestricted Indirect Cost Rate: 0.00%

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: Westfield Watermain Improvements

Sponsor(s)*: City of Minot

County*: Ward

City*: Minot

Description of Request*: New

If Study, What Type:

If Project/Program, What Type:

Jurisdictions/Stakeholders Involved*:
City of Minot

Describe the Problem*:

The watermain in the Westfield Addition area of Minot is primarily cast iron pipe. This area is subject to frequent watermain breaks, water quality issues as well as fire flow issues. The proposed project will replace approximately 6,000 LF of existing cast iron pipe with larger 8-inch PVC pipe thus reducing breaks, reducing water quality issues and providing adequate fire flow protection.

Provide Project Details, Objectives and Solutions to Address Problem*:

The proposed project will replace approximately 6,000 LF of existing cast iron pipe with larger 8-inch PVC pipe thus reducing breaks, reducing water quality issues and providing adequate fire flow protection.

For this project,

Choose City, County, Water District or Other*: City

What is the Current Estimated Population?*: 51000

For this project,

What is the Benefited Population?*: 500

Have Assessment Districts Been Formed?*: No

Have Land or Easements Been Acquired?*: N/A

Are There Any Properties with Wells, Drain Fields, or Holding Tanks Within the Project Area That Will Benefit from the Project?*: No

Are There Any Road Improvements Included as Part of the Project?*: No

Have You Applied For Any Federal Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Have You Applied for any State Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Have You Applied for any Local Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Do You Expect Any Obstacles to Implementation (i.e. Problems with Land Acquisition, Permits, Funding, Local Opposition, Environmental Concerns, etc.)?*: No

Have You Received, or Do You Anticipate Receiving Federal Funding? No
(Example: Hazard Mitigation Grant Program)
*:

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: N/A

Design Completion*: 2/2024

Bid*: 3/2024

Construction Start*: 5/2024

Construction Completion*: 10/2024

Explain Additional Timeline Issues*:
No additional timeline issues are anticipated.

Consulting Engineer*: Houston Engineering, Inc.

Engineer Telephone Number*: 701-852-7931

Engineer Email*: jreiter@houstoneng.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Veronica Meyer 10/17/2023
First Name Last Name Date

Address*: PO Box 5006
Address Line 1
Address Line 2
Minot North Dakota 58702-5006
City State Zip Code

Telephone Number*: 701-857-4140

Sponsor Email*: veronica.meyer@minotnd.gov

I Certify That, to the Best of My Knowledge, the Provided Information is True and Accurate*: Yes

Authorized Individual*: Veronica Meyer 10/17/2023
First Name Last Name Date

Title/Position/Authority*: Senior Project Manager

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If Yes, Add Boundary to Project Specific Map*: No

[CLICK HERE](#) to see examples.

Project Specific Map [Westfield Addition Watermain SWC LOCATION MAP.pdf](#)
Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community

Are You Seeking Department of Water Resources Cost-Share*: Yes

Are You Seeking Cost-Share for a Main Street Initiative Related Project?: No

Attach Completed Comprehensive Plan:
[CLICK HERE](#) for SFN 61801 Delineation of Costs Instructions and Current Version.

Delineation of Costs SFN 61801: [sfn_61801_delineation_of_cost.xlsx](#)

Type of Request: Preconstruction

Water Supply Projects?: Yes

CLICK HERE for Life Cycle Cost Analysis Instructions and Current Version, as Shown on Title Tab.

Life Cycle Cost Analysis: life_cycle_cost_analysis_worksheet.xlsx

CLICK HERE for Basic Asset Inventory and Capital Improvement Plan Instructions and Current Version, as Shown on Title Tab.

Capital Improvement Plan SFN 61938: sfn_61938_capital_improvement_plan.xlsx

Asset Inventory Assessment:

Rural Flood Control?: No

Drain Reconstructions?: No

Flood Recovery Property Acquisition?: No

Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of \$200,000 or More?: No

Sovereign Land Permit, if Required:

DWR Construction Permit, if Required:

Conditional Letter of Map Revision (CLOMR), if Required:

Feasibility/Engineering Study for the Proposed Project: No

Photos of Problem/Issue:

Other Applicable Document(s):

Other Applicable Document:

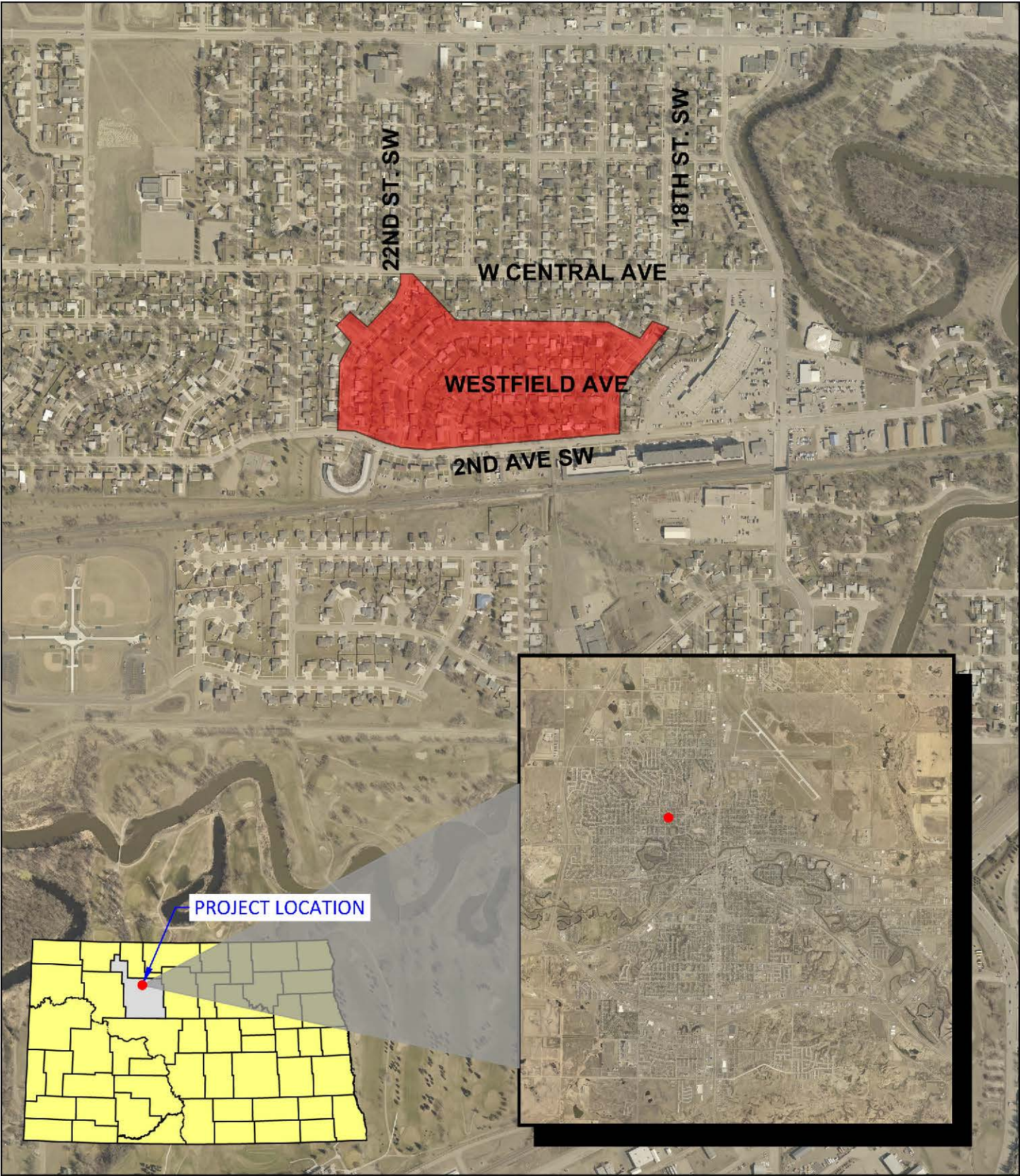
Other Applicable Document:

Other Applicable Document:

Sources

Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

Source	If Other, Specify Funding Source	State Fiscal Year 1 July to June	State Fiscal Year 2 July to June	Beyond Current Biennium	Total Cost	Type	Term	Interest Rate
Department of Water Resources Cost Share Pre-Construction		\$108,480.00	\$0.00	\$0.00	\$108,480.00	Grant	0.00	0.00
Other	City Sales Tax	\$1,568,600.00	\$0.00	\$0.00	\$1,568,600.00	Grant	0.00	0.00
Department of Water Resources Cost Share Construction		\$2,242,920.00	\$0.00	\$0.00	\$2,242,920.00	Grant	0.00	0.00
		\$3,920,000.00	\$0.00	\$0.00	\$3,920,000.00			



COST-SHARE APPLICATION
WESTFIELD ADDITION MINOT RESIDENTIAL
WATERMAIN REPLACEMENT

DATE DRAWN: 10/02/2023

City of Minot



DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (02/2023)

DWR Date Received : October 24, 2023

Project: Westfield Watermain Replacement
Sponsor: City of Minot
Contact: Veronica Meyer
Phone: 701-857-4140
Engineer: Joe Reiter, Houston Engineering, Inc.
Phone: 701-852-7931

Total Cost : \$ 3,920,000
Ineligible Cost : \$ 1,000
Eligible Cost : \$ 3,919,000
Local Cost : \$ 1,568,600

Date: October 1, 2023

Cost-Share \$
\$ 2,351,400
Preconstruction : \$ 108,480
Construction : \$ 2,242,920

Project Type:

Cost-share %

Municipal Water Expansion/Improvement

60%

		Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
		Construction Costs						
Item	%	Mobilization	1	LS	100,000.00	\$ 100,000	60%	\$ 60,000
1	2.9%	Bonding	1	LS	50,000.00	\$ 50,000	60%	\$ 30,000
2	1.4%	Insurance	1	LS	50,000.00	\$ 50,000	60%	\$ 30,000
3	1.4%	Traffic Control	1	LS	30,000.00	\$ 30,000	60%	\$ 18,000
4	0.9%	Erosion Control	1	LS	15,000.00	\$ 15,000	60%	\$ 9,000
5	0.4%	Hydrant - Remove	10	EA	5,000.00	\$ 50,000	60%	\$ 30,000
6	1.4%	Water Main 8 in	6000	LF	428.75	\$ 2,572,500	60%	\$ 1,543,500
7	73.5%	Hydrant	10	EA	20,000.00	\$ 200,000	60%	\$ 120,000
8	5.7%	Gate Valve	15	EA	7,500.00	\$ 112,500	60%	\$ 67,500
9	3.2%		0		-	\$ -	60%	\$ -
10	0.0%		0		-	\$ -	60%	\$ -
11	0.0%		0		-	\$ -	60%	\$ -
12	0.0%		0		-	\$ -	60%	\$ -
13	0.0%		0		-	\$ -	60%	\$ -
14	0.0%		0		-	\$ -	60%	\$ -
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16	0.0%		0		-	\$ -	60%	\$ -
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18	0.0%		0		-	\$ -	60%	\$ -
19	0.0%		0		-	\$ -	60%	\$ -
20	0.0%		0		-	\$ -	60%	\$ -
21	0.0%		0		-	\$ -	60%	\$ -
22	0.0%		0		-	\$ -	60%	\$ -
23	0.0%		0		-	\$ -	60%	\$ -
24	0.0%		0		-	\$ -	60%	\$ -
25	0.0%		0		-	\$ -	60%	\$ -
26	0.0%		0		-	\$ -	60%	\$ -
		Construction Sub-Total				\$ 3,180,000	60%	\$ 1,908,000
		Contingency				\$ 318,000	60%	\$ 190,800
	10.0%	Construction Total				\$ 3,498,000	60%	\$ 2,098,800
	89.2%							
		Preconstruction Costs						
27	5.2%	Final Design	1	NA	180,800.00	\$ 180,800	60%	\$ 108,480
28	0.0%		0		-	\$ -	60%	\$ -
29	0.0%		0		-	\$ -	60%	\$ -
30	0.0%		0		-	\$ -	60%	\$ -
31	0.0%		0		-	\$ -	60%	\$ -
	4.6%	Preconstruction Total				\$ 180,800	60%	\$ 108,480
		Construction Engineering Costs						
32	6.8%	Construction Contract Management	1	NA	239,200.00	\$ 239,200	60%	\$ 143,520
33	0.0%		0		-	\$ -	60%	\$ -
34	0.0%		0		-	\$ -	60%	\$ -
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	6.1%	Construction Engineering Total				\$ 239,200	60%	\$ 143,520
		Other Eligible Costs						
37	0.0%	Miscellaneous	1	LS	1,000.00	\$ 1,000	60%	\$ 600
38	0.0%		0		-	\$ -	60%	\$ -
39	0.0%		0		-	\$ -	60%	\$ -
40	0.0%		0		-	\$ -	60%	\$ -
41	0.0%		0		-	\$ -	60%	\$ -
	0.0%	Other Eligible Total				\$ 1,000	60%	\$ 600
		In-eligible Costs						
42	0.0%	Legal Expenses	1	NA	1,000.00	\$ 1,000	0%	\$ -
43	0.0%		0		-	\$ -	0%	\$ -
44	0.0%		0		-	\$ -	0%	\$ -
45	0.0%		0		-	\$ -	0%	\$ -
	0.0%	Other Ineligible Total				\$ 1,000	0%	\$ -
100.0%		Total				\$ 3,920,000		
		Eligible Total				\$ 3,919,000	60%	\$ 2,351,400
		Federal or State Funds That Supplant Costs						
						\$ -		
		Eligible Cost Total				\$ 3,919,000	60%	\$ 2,351,400

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Life Cycle Cost Analysis Review

Sponsor:
Project Title:

City of Minot
Westfield Watermain Replacement

Date:

October 25, 2023

Explanation of Alternatives:

Watermain Replacement (Preferred) - Replace existing cast iron pipe with PVC pipe at selected main locations to reduce breaks and improve water quality.

Do Nothing - Leave the system as is and continue to do spot repairs as needed.

Inputs:

New Connections Served	0			
Future Connections Served	0			
Current Connections Served	100			
Net Connections (New + Current)	100			
	Watermain Replacement (Preferred)	Do Nothing		
Construction Cost	\$3,920,000	\$0		
Annual O & M	\$1,500	\$25,000		

Details:

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	Watermain Replacement (Preferred)	Do Nothing		
Capital Costs	\$3,920,000	\$0		
O&M	\$49,000	\$761,000		
Repair, Rehab, Replacement	\$1,314,000	\$0		
Salvage Value	\$376,000	\$0		
Total PVC	\$4,907,000	\$761,000		
PV Cost Per User	\$49,070	\$7,610		

Current Water Rate (Cost Per 5000g)	\$38		
Comparable Water Rate	\$47		
Net Connections (New + Current)	100	100	
Cost-Share Percent	60%	60%	
Local Share	\$1,568,000	\$0	
Other Funding	\$0	\$0	
Total Local	\$1,568,000	\$0	
Payment Per User With Cost-Share	\$79.32	\$0.00	
Local Share	\$3,920,000	\$0	
Other Funding	\$0	\$0	
Total Local	\$3,920,000	\$0	
Payment Per User Without Cost-Share	\$198.31	\$0.00	

Explanation of Results:

The sponsor preferred project is the "Waterline Replacement" option. The present value cost of the preferred alternative is \$4,907,000 and the presented alternative for comparison is a "Do Nothing" at a present value cost of \$761,000. The present value cost per user for the preferred alternative is \$49,070. The monthly user cost of the local share with DWR 60% cost-share participation is \$79.32 per month and \$198.31 without DWR participation based upon 100 direct user connections.

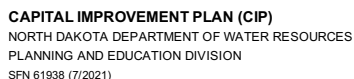
	Year		Annual Population Growth Rate	Average Annual Population Increase/Decrease
ND Dept. of Commerce	2010	2020		
Population & Trends	40,888	47,428	1.6%	654

Other Comments:

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor.

LCCA Version

Version 1.2022.07.08



Population:	51,000
Users:	20,400

New Project CIP Costs									
University Avenue Watermain Replacement	LS	\$3,920,000.00	1	75.00%	\$2,940,000	50	\$58,800	\$4,900	\$0.24
SUBTOTAL New CIP Costs					\$2,940,000		\$58,800	\$4,900	\$0.24

TOTAL Existing and New Project CIP		\$63,441,528		\$1,268,831	\$105,736	\$5.18
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	TOTAL RESERVES	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Current:	\$18,708,852	\$6,792,595	\$566,049.58	\$27.75
Adjustment:	\$44,732,676	\$0	\$0	\$0.00

	Monthly Ave Gal/user	Monthly \$/kgal
Required	5,000	\$1.04
Current	5,000	\$5.55
Adjustment	5,000	\$0.00

Report Prepared by (Title): _____
Date: _____

Notes:

Instructions

- 1 - Fill in colored items
- 2 - Enter Existing asset project CIP costs
- 3 - Enter New asset project CIP costs
- 4 - Enter current total reserves and annual reserve

H2

1081712 - University Avenue Watermain Replacement

Application Details

Funding Opportunity:	22356-State Fiscal Year 2023-2024 Infrastructure Request
Funding Opportunity Due Date:	Jun 30, 2024 3:00 PM
Program Area:	Funding for Infrastructure in ND - FIND
Status:	Under Review
Stage:	Final Application
Initial Submit Date:	Oct 17, 2023 11:30 AM
Initially Submitted By:	Veronica Meyer
Last Submit Date:	Oct 25, 2023 4:20 PM
Last Submitted By:	Veronica Meyer

Contact Information

Primary Contact Information

Active User*:	Yes
Type:	External User
Name:	Salutation Veronica Middle Name Meyer First Name Last Name
Title:	Senior Project Engineer
Email*:	veronica.meyer@minotnd.gov
Address*:	po Box 5006
Phone*:	Minot North Dakota 58702-5006 City State/Province Postal Code/Zip 701-857-4140 Ext. Phone ###-###-####
Fax:	###-###-####
Comments:	

Organization Information

Status*:	Approved
Name*:	City of Minot
Organization Type*:	Municipal Government
Tax Id:	
Organization Website:	

Address*: 1025 31st St. SE
PO Box 5006

Minot North Dakota 58701-____
City State/Province Postal Code/Zip

Phone*: (701) 857-4140 Ext.
#####

Fax: ### ### #####

Benefactor:

Vendor ID:

PeopleSoft Supplier ID:

Comments:

Location Code:

SAM.gov Entity ID:

SAM.gov Name:

SAM.gov Entity ID Expiration Date:

State Issued ID:

Category #:

Year Begin:

Year Closed:

NCES#:

Restricted Indirect Cost Rate: 0.00%

Unrestricted Indirect Cost Rate: 0.00%

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: University Avenue Watermain Replacement

Sponsor(s)*: City of Minot

County*: Ward

City*: Minot

Description of Request*: New

If Study, What Type:

If Project/Program, What Type:

Jurisdictions/Stakeholders Involved*:
City of Minot

Describe the Problem*:

The watermain in the NW area of Minot is primarily cast iron pipe. This area is subject to frequent watermain breaks and water quality issues.

Provide Project Details, Objectives and Solutions to Address Problem*:

The proposed project will replace approximately 6,000 LF of existing cast iron pipe with larger 8-inch PVC pipe thus reducing breaks and reducing water quality issues. The first phase of the NW Area is under construction with a substantial completion date of October 31, 2023.

For this project,

Choose City, County, Water District or Other*: City

What is the Current Estimated Population?*: 51000

For this project,

What is the Benefited Population?*: 500

Have Assessment Districts Been Formed?*: No

Have Land or Easements Been Acquired?*: N/A

Are There Any Properties with Wells, Drain Fields, or Holding Tanks Within the Project Area That Will Benefit from the Project?*: No

Are There Any Road Improvements Included as Part of the Project?*: No

Have You Applied For Any Federal Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Have You Applied for any State Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Have You Applied for any Local Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Do You Expect Any Obstacles to Implementation (i.e. Problems with Land Acquisition, Permits, Funding, Local Opposition, Environmental Concerns, etc.)?*: No

Have You Received, or Do You Anticipate Receiving Federal Funding? No
(Example: Hazard Mitigation Grant Program)
*:

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: N/A

Design Completion*: 2/2024

Bid*: 3/2024

Construction Start*: 5/2024

Construction Completion*: 10/2024

Explain Additional Timeline Issues*:
No timeline issues are anticipated.

Consulting Engineer*: Houston Engineering, Inc.

Engineer Telephone Number*: 170-185-7414

Engineer Email*: jreiter@houstoneng.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Veronica Meyer 10/17/2023
First Name Last Name Date

Address*: PO Box 5006
Address Line 1
Address Line 2
Minot North Dakota 58702-5006
City State Zip Code

Telephone Number*: 701-857-4140

Sponsor Email*: veronica.meyer@minotnd.gov

I Certify That, to the Best of My Knowledge, the Provided Information is True and Accurate*: Yes

Authorized Individual*: Veronica Meyer 10/17/2023
First Name Last Name Date

Title/Position/Authority*: Senior Project Manager

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If Yes, Add Boundary to Project Specific Map*: No
[CLICK HERE](#) to see examples.

Project Specific Map [NW Area Phase 2 SWC LOCATION MAP.pdf](#)
Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community
*:

Are You Seeking Department of Water Resources Cost-Share*: Yes

Are You Seeking Cost-Share for a Main Street Initiative Related Project?: No

Attach Completed Comprehensive Plan:
[CLICK HERE](#) for SFN 61801 Delineation of Costs Instructions and Current Version.

Delineation of Costs SFN 61801: [sfn_61801_delineation_of_cost.xlsx](#)

Type of Request: Preconstruction

Water Supply Projects?: Yes
[CLICK HERE](#) for Life Cycle Cost Analysis Instructions and Current Version, as Shown on Title Tab.

Life Cycle Cost Analysis: [life_cycle_cost_analysis_worksheet.xlsx](#)
[CLICK HERE](#) for Basic Asset Inventory and Capital Improvement Plan Instructions and Current Version, as Shown on Title Tab.
Capital Improvement Plan SFN 61938: [sfn_61938_capital_improvement_plan.xlsx](#)

Asset Inventory Assessment:

Rural Flood Control?: No

Drain Reconstructions?: No

Flood Recovery Property Acquisition?: No

Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of \$200,000 or More?: No

Sovereign Land Permit, if Required:

DWR Construction Permit, if Required:

Conditional Letter of Map Revision (CLOMR), if Required:

Feasibility/Engineering Study for the Proposed Project: No

Photos of Problem/Issue:

Other Applicable Document(s):

Other Applicable Document:

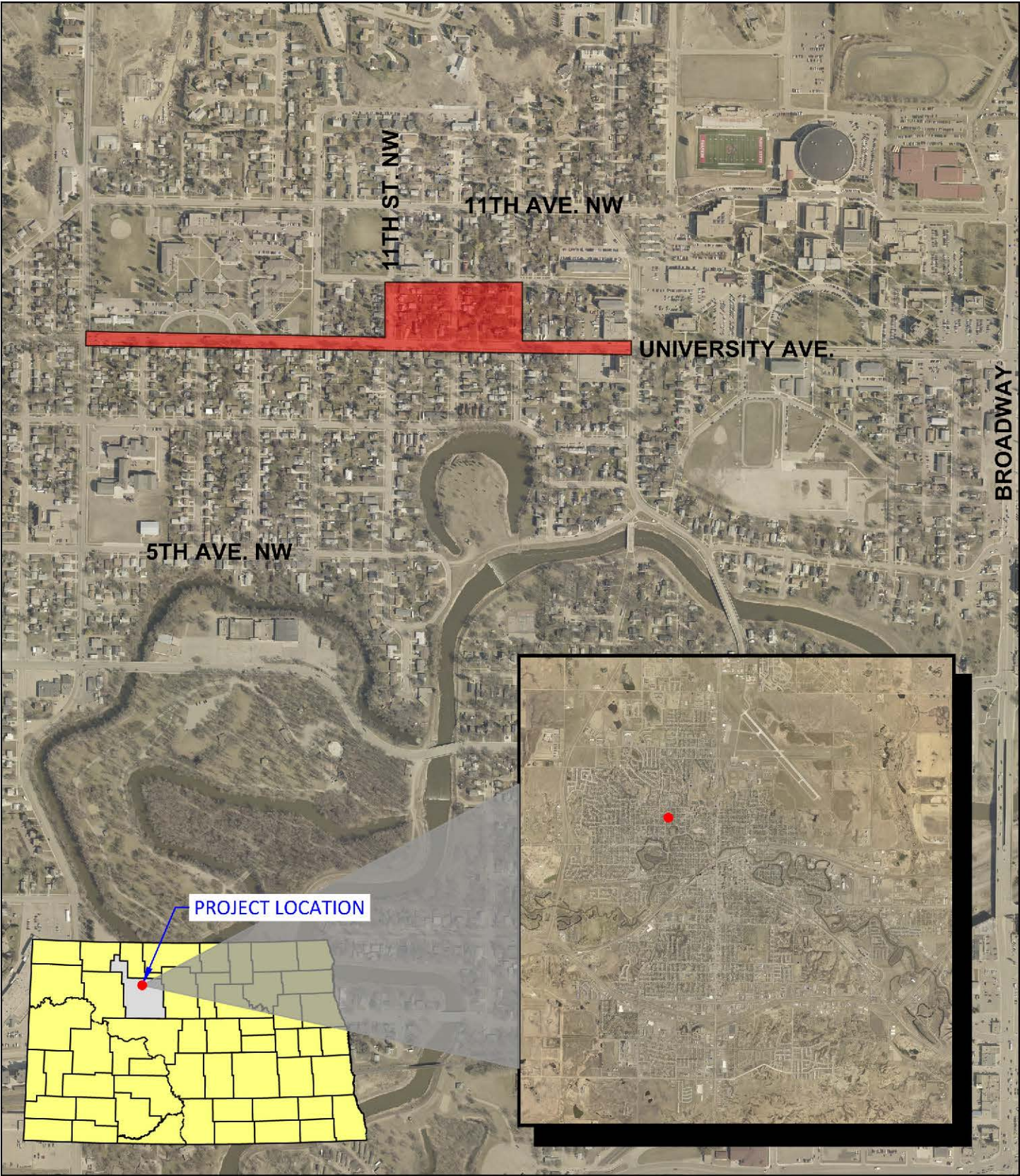
Other Applicable Document:

Other Applicable Document:

Sources

Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

Source	If Other, Specify Funding Source	State Fiscal Year 1 July to June	State Fiscal Year 2 July to June	Beyond Current Biennium	Total Cost	Type	Term	Interest Rate
Department of Water Resources Cost Share Pre-Construction		\$108,480.00	\$0.00	\$0.00	\$108,480.00	Grant	0.00	0.00
Other	City Sales Tax	\$1,568,600.00	\$0.00	\$0.00	\$1,568,600.00		0.00	0.00
Department of Water Resources Cost Share Construction		\$2,242,920.00	\$0.00	\$0.00	\$2,242,920.00	Grant	0.00	0.00
		\$3,920,000.00	\$0.00	\$0.00	\$3,920,000.00			



COST-SHARE APPLICATION
NW MINOT RESIDENTIAL WATERMAIN
REPLACEMENT - PHASE 2

DATE DRAWN: 10/02/2023

City of Minot



DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (02/2023)

DWR Date Received : October 24, 2023

Project: NW Minot Residential Watermain Replacement - Phase 2 University Ave
Sponsor: City of Minot
Contact: Veronica Meyer
Phone: 701-857-4140
Engineer: Joe Reiter, Houston Engineering, Inc.
Phone: 701-852-7931

Total Cost : \$ 3,920,000
Ineligible Cost : \$ 1,000
Eligible Cost : \$ 3,919,000
Local Cost : \$ 1,568,600

Date: October 1, 2021

Cost-Share \$
\$ 2,351,400

Preconstruction : \$ 108,480
Construction : \$ 2,242,920

Project Type:

Cost-share %

Municipal Water Expansion/Improvement

60%

		Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Construction Costs								
1	2.9%	Mobilization	1	LS	100,000.00	\$ 100,000	60%	\$ 60,000
2	1.4%	Bonding	1	LS	50,000.00	\$ 50,000	60%	\$ 30,000
3	1.4%	Insurance	1	LS	50,000.00	\$ 50,000	60%	\$ 30,000
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16	0.0%		0		-	\$ -	60%	\$ -
17	0.0%		0		-	\$ -	60%	\$ -
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		Construction Sub-Total				\$ 3,180,000	60%	\$ 1,908,000
		Contingency				\$ 318,000	60%	\$ 190,800
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	0.0%	Other Eligible Total				\$ 1,000	60%	\$ 600
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42	0.0%	Legal Expenses	1	NA	1,000.00	\$ 1,000	0%	\$ -
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Life Cycle Cost Analysis Review

Sponsor:

City of Minot

Project Title:

University Avenue Watermain Replacement

Date:

October 25, 2023

Explanation of Alternatives:

Watermain Replacement (Preferred) - Replace existing cast iron pipe with PVC pipe at selected main locations to reduce breaks and improve water quality.

Do Nothing - Leave the system as is and continue to do spot repairs as needed.

Inputs:

New Connections Served		0		
Future Connections Served		0		
Current Connections Served		100		
Net Connections (New + Current)		100		
	Watermain	Do Nothing		
Construction Cost	\$3,920,000	\$0		
Annual O & M	\$1,500	\$25,000		

Details:

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	Watermain	Do Nothing		
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O&M	\$49,000	\$761,000		
Repair, Rehab, Replacement	\$1,314,000	\$0		
Salvage Value	\$376,000	\$0		
Total PVC	\$4,907,000	\$761,000		
PV Cost Per User	\$49,070	\$7,610		

Current Water Rate (Cost Per 5000g)	\$38		
Comparable Water Rate	\$47		
Net Connections (New + Current)	100		
Cost-Share Percent	60%	60%	
Local Share	\$1,568,000	\$0	
Other Funding	\$0	\$0	
Total Local	\$1,568,000	\$0	
Payment Per User With Cost-Share	\$79.32	\$0.00	
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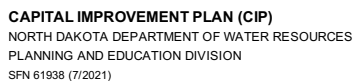
Explanation of Results:

The sponsor preferred project is the "Waterline Replacement" option. The present value cost of the preferred alternative is \$4,907,000 and the presented alternative for comparison is a "Do Nothing" at a present value cost of \$761,000. The present value cost per user for the preferred alternative is \$49,070. The monthly user cost of the local share with DWR 60% cost-share participation is \$79.32 per month and \$198.31 without DWR participation based upon 100 direct user connections.

	Year		Annual Population Growth	Average Annual Population
ND Dept. of Commerce	2010	2020	Rate	Increase/Decrease
Population & Trends	40,888	47,428	1.6%	654

Other Comments:

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LCCA Version Version 1.2022.07.08



Population:	51,000
Users:	20,400

TOTAL Existing and New Project CIP		\$63,441,528		\$1,268,831	\$105,736	\$5.18
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	TOTAL RESERVES	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Current:	\$18,708,852	\$6,792,595	\$566,049.58	\$27.75
Adjustment:	\$44,732,676	\$0	\$0	\$0.00

	Monthly Ave Gal/user	Monthly \$/kgal
Required	5,000	\$1.04
Current	5,000	\$5.55
Adjustment	5,000	\$0.00

Report Prepared by (Title): _____
Date: _____

Notes:

Instructions

- 1 - Fill in colored items
- 2 - Enter Existing asset project CIP costs
- 3 - Enter New asset project CIP costs
- 4 - Enter current total reserves and annual reserve

1081856 - Watermain Improvement Dist. No. 105 - 2nd Ave NW, 3rd St NW and 4th St NE (NW/NE Quadrant Watermain Improvements)

Application Details

Funding Opportunity:	22356-State Fiscal Year 2023-2024 Infrastructure Request
Funding Opportunity Due Date:	Jun 30, 2024 3:00 PM
Program Area:	Funding for Infrastructure in ND - FIND
Status:	Under Review
Stage:	Final Application
Initial Submit Date:	Oct 23, 2023 2:50 PM
Initially Submitted By:	Brenda Klein
Last Submit Date:	Oct 25, 2023 4:35 PM
Last Submitted By:	Brenda Klein

Contact Information

Primary Contact Information

Active User*:	Yes
Type:	External User
Name:	Ms. Brenda Rene Klein <small>Salutation First Name Middle Name Last Name</small>
Title:	Deputy Auditor
Email*:	bklein@valleycity.us
Address*:	254 2nd Ave NE Valley City North Dakota 58072 <small>City State/Province Postal Code/Zip</small>
Phone*:	701-845-8124 Ext. <small>Phone</small> ###-###-####
Fax:	701-845-4588 <small>###-###-####</small>
Comments:	

Organization Information

Status*:	Approved
Name*:	City of Valley City
Organization Type*:	Municipal Government
Tax Id:	45-6002171

Organization Website: <https://www.valleycity.us>

Address*: PO Box 390
254 2nd Ave NE

Valley City North Dakota 58072-0390
City State/Province Postal Code/Zip

Phone*: 701-845-8121 Ext. ###-###-####

Fax: ###-###-####

Benefactor:

Vendor ID:

PeopleSoft Supplier ID:

Comments:

Location Code:

SAM.gov Entity ID:

SAM.gov Name:

SAM.gov Entity ID Expiration Date:

State Issued ID:

Category #:

Year Begin:

Year Closed:

NCES#:

Restricted Indirect Cost Rate: 0.00%

Unrestricted Indirect Cost Rate: 0.00%

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: Watermain Improvement District No. 105

Sponsor(s)*: City of Valley City

County*: Barnes

City*: Valley City

Description of Request*: New

If Study, What Type:

If Project/Program, What Type: Municipal Water Supply

Jurisdictions/Stakeholders Involved*: City of Valley City

Describe the Problem*:
Insufficient fire protection, aging infrastructure and water quality

Provide Project Details, Objectives and Solutions to Address Problem*:

The project consists of 4 blocks of watermain replacement. The project will replace an undersized cast iron watermain with a PVC watermain. The existing services will also be replaced with new poly services. The project will increase flows in the downtown area and increase water pressure and quality to households and businesses.

For this project,

Choose City, County, Water District or Other*: City

What is the Current Estimated Population?*: 6575

For this project,

What is the Benefited Population?*: 300

Have Assessment Districts Been Formed?*: Yes

Date Formed: 09/18/2023

Have Land or Easements Been Acquired?*: N/A

Are There Any Properties with Wells, Drain Fields, or Holding Tanks Within the Project Area That Will Benefit from the Project?*: No

Are There Any Road Improvements Included as Part of the Project?*: Yes

If Yes, Describe the Condition and Last Improvements Made to Any Underground Infrastructure.:

The existing pavement was assessed as part of the Urban Transportation Needs Study. These segments of roadway were determined to be in fair to poor condition. 2nd Ave NW was last improved in 2002 (mill & overlay); 3rd St NW and 4th St NE were last improved in 1979 (overlay).

Have You Applied For Any Federal Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Have You Applied for any State Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Have You Applied for any Local Permits?*: Yes

If Yes or Ongoing, Please Explain (include type/number):

Floodplain Development Permit, Non-Building

Have You Been Approved For Any Local Permits?*: Yes

If Yes or Ongoing, Please Explain (include type/number):

Floodplain Development Permit, Non-Building - Approved 8-22-23 (Permit #23-NBP-01)

Do You Expect Any Obstacles to Implementation (i.e. Problems with Land Acquisition, Permits, Funding, Local Opposition, Environmental Concerns, etc.)?*

No

Have You Received, or Do You Anticipate Receiving Federal Funding?
(Example: Hazard Mitigation Grant Program)
*:

No

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: 09/2023

Design Completion*: 09/2023

Bid*: 11/2023

Construction Start*: 05/2024

Construction Completion*: 10/2024

Explain Additional Timeline Issues*:

Throughout the last few construction seasons, we have seen delays in the shipping of project materials. The proposed project will be bid in November 2023. With a timely award of the project and review of the shop drawings, delays should be minimal ensuring a timely completion of this project.

Consulting Engineer*: Chad Petersen

Engineer Telephone Number*: 701-845-9446

Engineer Email*: chad.petersen@kljeng.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Gwen Crawford 10/23/2023
First Name Last Name Date

Address*: 254 2nd Ave NE
Address Line 1
Address Line 2
Valley City North Dakota 58072-0390
City State Zip Code

Telephone Number*: 701-845-8120

Sponsor Email*: gccrawford@valleycity.us

I Certify That, to the Best of My Knowledge, the Provided Information is True and Accurate*: Yes

Authorized Individual*: Gwen Crawford 10/23/2023
First Name Last Name Date

Title/Position/Authority*: City Administrator

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If Yes, Add Boundary to Project Specific Map.*:

Yes

[CLICK HERE](#) to see examples.

Project Specific Map

[LocationMap_WaterMainDistrict105.pdf](#)

Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community

.*:

Are You Seeking Department of Water Resources Cost-Share?*

Yes

Are You Seeking Cost-Share for a Main Street Initiative Related Project?:

No

Attach Completed Comprehensive Plan:

[CLICK HERE](#) for SFN 61801 Delineation of Costs Instructions and Current Version.

Delineation of Costs SFN 61801: [sfn_61801_delineation_of_cost_Water_105.xlsx](#)

Type of Request: Construction

Signed Plans and Specifications For Bidding: [Watermain_105_etc_Reduced.pdf](#)

Water Supply Projects?: Yes

[CLICK HERE](#) for Life Cycle Cost Analysis Instructions and Current Version, as Shown on Title Tab.

Life Cycle Cost Analysis: [life_cycle_cost_analysis_worksheet.xlsx](#)

[CLICK HERE](#) for Basic Asset Inventory and Capital Improvement Plan Instructions and Current Version, as Shown on Title Tab.

Capital Improvement Plan SFN 61938: [Capital_imp_Plan_VC.pdf](#)

Asset Inventory Assessment:

Rural Flood Control?: No

Drain Reconstructions?: No

Flood Recovery Property Acquisition?: No

Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of \$200,000 or More?: No

Sovereign Land Permit, if Required:

DWR Construction Permit, if Required:

Conditional Letter of Map Revision (CLOMR), if Required:

Feasibility/Engineering Study for the Proposed Project: No

Photos of Problem/Issue:

Other Applicable Document(s):

Other Applicable Document:

Other Applicable Document:

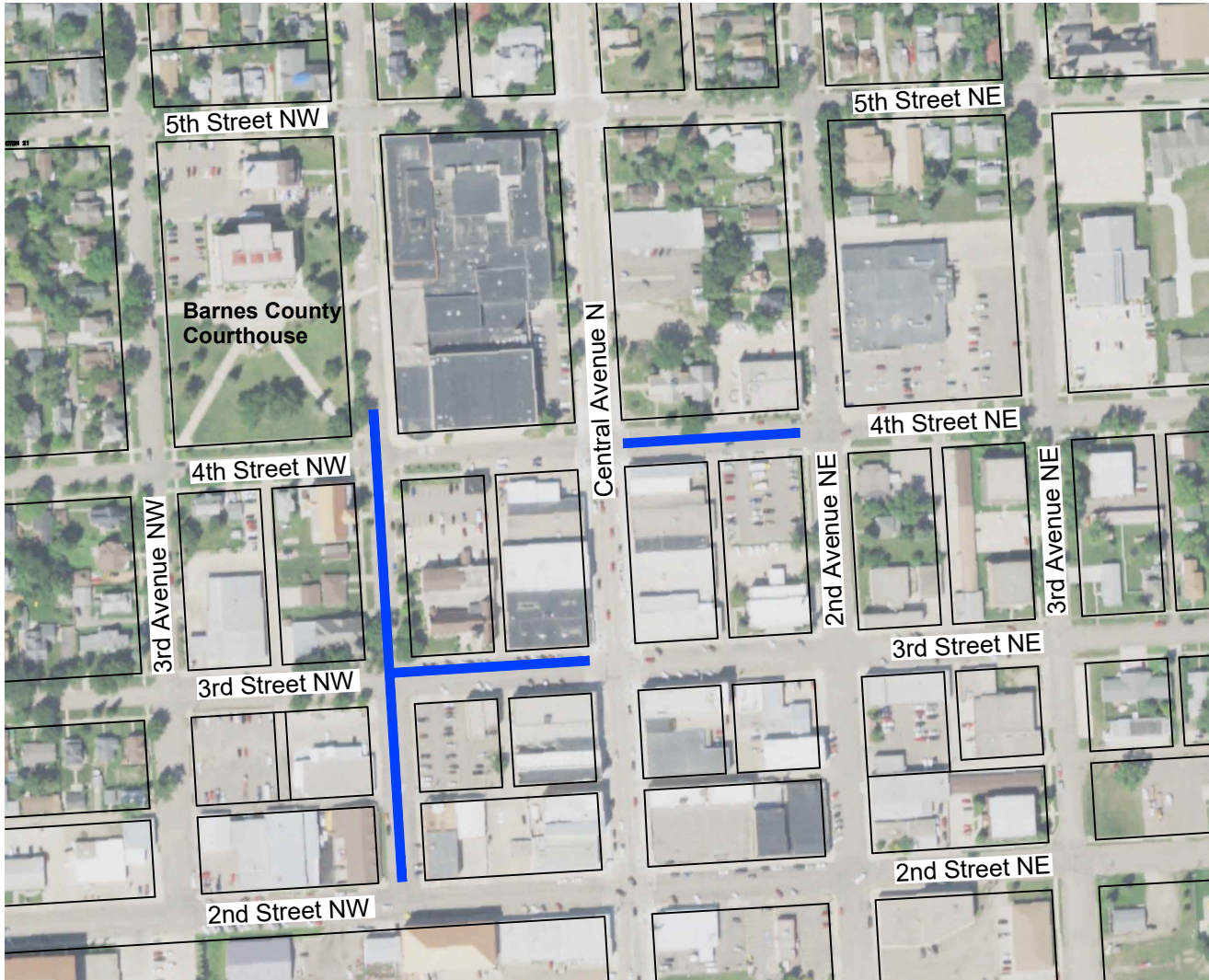
Other Applicable Document:

Sources

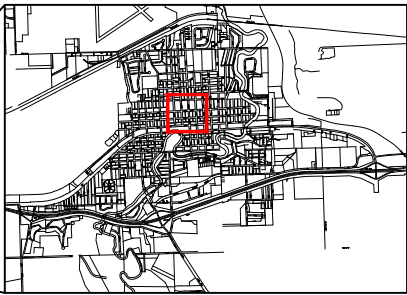
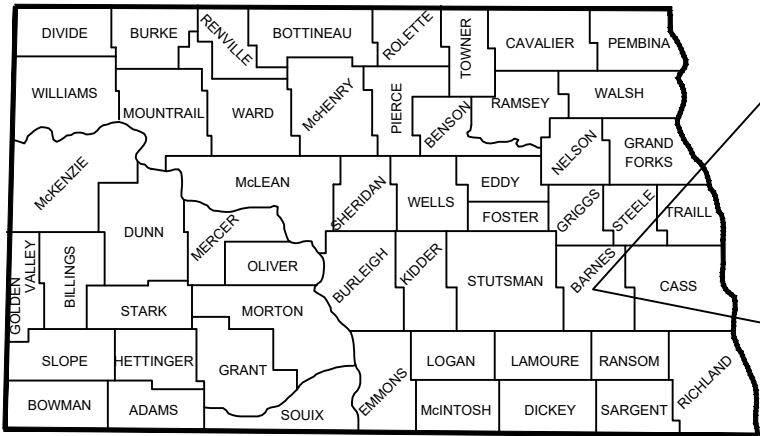
Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

Source	If Other, Specify Funding Source	State Fiscal Year 1 July to June	State Fiscal Year 2 July to June	Beyond Current Biennium	Total Cost	Type	Term	Interest Rate
Department of Water Resources Cost Share Construction		\$258,700.00	\$258,700.00	\$0.00	\$517,400.00	Grant	0.00	0.00
Drinking Water State Revolving Fund		\$40,000.00	\$40,000.00	\$0.00	\$80,000.00	Loan	20.00	2.00
Clean Water State Revolving Fund		\$40,000.00	\$40,000.00	\$0.00	\$80,000.00	Loan	20.00	2.00
BND Infrastructure Revolving Loan Fund		\$160,000.00	\$160,000.00	\$0.00	\$320,000.00	Loan	20.00	2.00
		\$498,700.00	\$498,700.00	\$0.00	\$997,400.00			

Water Main District No. 105
2nd Ave NW, 3rd St NW and 4th St NE Watermain Replacement Project
City of Valley City, North Dakota



Proposed Watermain Replacement Project



Valley City, ND





DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (02/2023)

DWR Date Received : October 23, 2023

Project: Watermain Improvement District 105
Sponsor: City of Valley City
Contact: Gwen Crawford, City Administrator
Phone: 701_845_8120
Engineer: Chad Petersen, KLJ Engineering LLC
Phone: 701_845_9446

Total Cost :	\$ 5,107,581	Date:	October 23, 2023
Ineligible Cost :			
Eligible Cost :	\$ 862,319	Cost-Share \$	
Local Cost :	\$ 4,590,181		\$ 517,400
		Preconstruction :	\$ -
		Construction :	\$ 517,391

Project Type: Cost-share %

Municipal Water Expansion/Improvement 60%

		Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Construction Costs								
1	5.4%	Mobilization	0.1	LS	400,000.00	\$ 40,000	60%	\$ 24,000
2	0.4%	Bonding	0.1	LS	32,500.00	\$ 3,250	60%	\$ 1,950
3	0.0%	Insurance	0		-	\$ -	60%	\$ -
4	5.3%	Removal of Pavement	1120	TON	35.00	\$ 39,200	60%	\$ 23,520
5	2.7%	Removal of Pipe All Types and Sizes	1342	LF	15.00	\$ 20,130	60%	\$ 12,078
6	6.6%	Salvaged Base Course	841	CY	58.00	\$ 48,778	60%	\$ 29,267
7	9.4%	Superpave FAA 43 (HMA)	631	TON	110.00	\$ 69,410	60%	\$ 41,646
8	4.4%	PG 58S-28 Asphalt Cement	41	TON	800.00	\$ 32,800	60%	\$ 19,680
9	0.9%	8IN Non-Reinf Concrete Pvmnt CL AE-Dc	40	SY	175.00	\$ 7,000	60%	\$ 4,200
10	1.2%	Geosynthetic Material Type G	2522	SY	3.50	\$ 8,827	60%	\$ 5,296
11	4.3%	Fittings-Ductile Iron	1261	LBS	25.00	\$ 31,525	60%	\$ 18,915
12	0.4%	Remove Gate Valve & Box	7	EA	400.00	\$ 2,800	60%	\$ 1,680
13	2.0%	Gate Valve & Box 6IN	3	EA	5,000.00	\$ 15,000	60%	\$ 9,000
14	3.7%	Gate Valve & Box 8IN	5	EA	5,500.00	\$ 27,500	60%	\$ 16,500
15	3.5%	Gate Valve & Box 12IN	4	EA	6,500.00	\$ 26,000	60%	\$ 15,600
16	2.4%	Hydrant -Install 6IN	2	EA	9,000.00	\$ 18,000	60%	\$ 10,800
17	0.2%	Remove Hydrant	2	EA	750.00	\$ 1,500	60%	\$ 900
18	1.6%	Sleeve 8IN	4	EA	3,000.00	\$ 12,000	60%	\$ 7,200
19	0.9%	Sleeve 12IN	2	EA	3,500.00	\$ 7,000	60%	\$ 4,200
20	2.3%	Water Service Line 1IN	482	LF	35.00	\$ 16,870	60%	\$ 10,122
21	0.4%	Water Service Line 6IN	25	LF	125.00	\$ 3,125	60%	\$ 1,875
22	0.4%	Watermain 6IN PVC	30	LF	95.00	\$ 2,850	60%	\$ 1,710
23	9.1%	Watermain 8IN PVC	671	LF	100.00	\$ 67,100	60%	\$ 40,260
24	11.6%	Watermain 12IN PVC	685	LF	125.00	\$ 85,625	60%	\$ 51,375
25	9.8%	Water Service Connection 1IN	12	EA	6,000.00	\$ 72,000	60%	\$ 43,200
26	1.6%	Polystyrene Insulation Board	2400	BD FT	5.00	\$ 12,000	60%	\$ 7,200
		Construction Sub-Total				\$ 670,290	60%	\$ 402,174
	10.0%	Contingency				\$ 67,029	60%	\$ 40,217
	14.4%	Construction Total				\$ 737,319	60%	\$ 442,391
Preconstruction Costs								
27	0.0%		0		-	\$ -	60%	\$ -
28	0.0%		0		-	\$ -	60%	\$ -
29	0.0%		0		-	\$ -	60%	\$ -
30	0.0%		0		-	\$ -	60%	\$ -
31	0.0%		0		-	\$ -	60%	\$ -
	0.0%	Preconstruction Total				\$ -	60%	\$ -
Construction Engineering Costs								
32	14.9%	Construction Contract Management	1	NA	110,000.00	\$ 110,000	60%	\$ 66,000
33	2.0%	Materials Testing	1	NA	15,000.00	\$ 15,000	60%	\$ 9,000
34	0.0%		0		-	\$ -	60%	\$ -
35	0.0%		0		-	\$ -	60%	\$ -
36	0.0%		0		-	\$ -	60%	\$ -
	2.4%	Construction Engineering Total				\$ 125,000	60%	\$ 75,000
Other Eligible Costs								
37	0.0%		0		-	\$ -	60%	\$ -
38	0.0%		0		-	\$ -	60%	\$ -
39	0.0%		0		-	\$ -	60%	\$ -
40	0.0%		0		-	\$ -	60%	\$ -
41	0.0%		0		-	\$ -	60%	\$ -
	0.0%	Other Eligible Total				\$ -	60%	\$ -
In-eligible Costs								
42	74.4%	Paving Improvement Dist. No. 128	1	LS	3,799,522.00	\$ 3,799,522	0%	\$ -
43	8.7%	Sanitary Sewer Improvement Dist. No. 6	1	LS	445,740.00	\$ 445,740	0%	\$ -
44	0.0%		0		-	\$ -	0%	\$ -
45	0.0%		0		-	\$ -	0%	\$ -
	83.1%	Other Ineligible Total				\$ 4,245,262	0%	\$ -
	100.0%	Total				\$ 5,107,581		
		Eligible Total				\$ 862,319	60%	\$ 517,391
Federal or State Funds That Supplant Costs								
						\$ -		
		Eligible Cost Total				\$ 862,319	60%	\$ 517,391

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Life Cycle Cost Analysis Review

Sponsor: City of Valley City
Project Title: 2nd Ave NW, 3rd and 4th St N Reconstruction

Date: October 25, 2023

Explanation of Alternatives:

Waterline Replacement (PVC)(Preferred) - The project consists of 4 blocks of watermain replacement. The project will replace an undersized cast iron watermain with a PVC watermain. The existing services will also be replaced with new poly services. The project will increase flows in the downtown area and improve water quality to households and businesses.

Watermain Replacement (Ductile Iron) - Replace undersized existing cast iron with iron piping.

Do Nothing – Was not addressed.

Inputs:

New Connections Served	0			
Future Connections Served	0			
Current Connections Served	12			
Net Connections (New + Current)	12			
	Waterline Replacement (PVC)(Preferred)	Watermain Replacement (Ductile Iron)		
Construction Cost	\$862,600	\$850,900		
Annual O & M	\$500	\$500		

Details:

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	Waterline Replacement (PVC)(Preferred)	Watermain Replacement (Ductile Iron)		
Capital Costs	\$863,000	\$851,000		
O&M	\$0	\$0		
Repair, Rehab, Replacement	\$83,000	\$83,000		
Salvage Value	\$19,000	\$19,000		
Total PVC	\$927,000	\$915,000		
PV Cost Per User	\$77,250	\$76,250		

Current Water Rate (Cost Per 5000g)	\$48		
Comparable Water Rate	\$47		
Net Connections (New + Current)	12	12	
Cost-Share Percent	60%	60%	
	Local Share	\$345,200	\$340,400
	Other Funding	\$0	\$0
	Total Local	\$345,200	\$340,400
Payment Per User With Cost-Share	\$145.53	\$143.50	
	Local Share	\$863,000	\$851,000
	Other Funding	\$0	\$0
	Total Local	\$863,000	\$851,000
Payment Per User Without Cost-Share	\$363.81	\$358.76	

Explanation of Results:

The sponsor preferred project is the “Waterline Replacement (PVC)” option. The present value cost of the preferred alternative is \$927,000 and the presented alternative for comparison is a “Watermain Replacement (Ductile Iron)” at a present value cost of \$915,000. The present value cost per user for the preferred alternative is \$77,250. The monthly user cost of the local share with DWR 60% cost-share participation is \$145.30 per month and \$363.81 without DWR participation based upon 12 direct user connections.

	Year	Annual Population Growth	Average Annual Population
ND Dept. of Commerce	2010 2020	Rate	Increase/Decrease
Population & Trends	6,585 6,300	-0.4%	-29

Other Comments:

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor.
 LCCA Version Version 1.2022.07.08

Infrastructure Renewal & Replacement Fund 290 Activity Report - 20 Year Plan Beginning in 2020-2031

Fund 290	Actual	Actual	Actual	Year-17 Estimated	Year-18 Estimated
Revenue Source:	2020	2021	2022	2023	2024
Residential R&R utility fees	264,060	263,103.01	263,466	263,000	263,000
Commercial R&R utility fees	85,830	85,503.00	85,984	86,000	86,000
BEK & CSI-2.5% franchise fees	34,521	38,211	27,589	27,000	37,000
Cass County Electric	1,984	2,690	1,998	2,500	2,500
MDU Gas	45,149	45,808	46,119	46,000	46,000
1/2% City Sales Tax-2007	447,307	564,976	541,547	541,547	546,962
1/2% City Sales Tax - 2010	447,307	564,976	541,547	541,547	546,962
Int Inc,Bad Debt & Refund Exp		(726)	(1,482)		
Actual & Estimated Annual Rev:	1,326,157	1,564,541	1,506,767	1,507,594	1,528,425
Plus: Prior Year Ending Balance:	1,243,611	886,110	1,815,563	1,760,154	377,748
Less Transfer Out	(1,683,657)	(635,088)	(1,562,177)	(2,889,999)	(2,585,359)
Infrastructure R&R Fund Bal:	886,110	1,815,563	1,760,154	377,748	(679,186)

2020 Projects	Date Trf	Amount Trf	2022 Projects	Date Trf	Amount Trf
5th Ave NW - Main St to 12th St NW (Reconstruction)	Trf 12/31/21	\$1,238,812.00	Permanent Flood Protection	12.31.22 TRF	\$155,463
5th Ave NW - Main St to 12th St NW (Reconstruction) - for topsoil, grass seed & 1st sealcoat	Balance Updated 3/15/22	\$370,988	Paving 122 Main Street Seal Coat	Updated 05.28.21 12.31.21, 10.27.22	\$9,420
Sidewalk Replacement & Saw Cut	Trf 10/30/2020	\$10,205	6th St NW	Updated 01/7/22 04/21/23	\$800,450
Seal Coat Paving 121	Trf 8/31/2021	\$63,652	Nextera	Updated 04.20.23	\$130,000
Permanent Flood Protection	Did not need for 2020	\$0	Hill Slide on N Side of West Main Street by Exit 290	02.14.21 5/30.23 Final Trf 5/31/23 JE	\$117,191
2020 Total		\$1,683,657	12 St N & 8th Ave SW Mill & Overlay	1/10/2022	\$150,000
2021 Projects	Date Trf	Amount Trf	2022 PW Special Assessments	12.31.22 TRF	\$199,653
Permanent Flood Protection	Trf 12/31/21	\$118,526	2022 Total		\$1,562,177
Streetscape Phase II - Main Street & Central South-Updated 8.01.21 Trf \$308,080 12/31/21.. Trf 36,193.81 11.30.22	Updated 10.26.22	\$384,274	2023 Projects	Date Trf	Amount Trf
Mill & Overlay - 1 block by Senior Center	Trf 11/30/21 & Year End 2021	\$48,133	2023 Pav 127 West Main & Frontage M&O Phase I & Phase II	2/28/2023 Balance in 2025 Update 5.24.23	\$138,537
2nd Ave S - South of College Street	Trf 11/30/21	\$8,134	2nd Ave & 3rd Ave NE	Updated post bid 5.1.2	\$2,477,902
Mill Dam Erosion	Trf 10/31/22	\$15,801.72	HSIP-8th Ave SW	Updated post bid 5.1.2	\$73,560
2018 Proj WS Greenline Watermain loop Final	Trf 05/31/21	\$300	Permanent Flood Protection		\$200,000
Paving 115 Final	Trf 12/31/21	\$399	Total 2023		\$2,889,999
PW Infrastructure Projects	were SpecAssess - Trf 11.30.21	\$59,519	2024 Projects	Date Trf	Amount Trf
7th Ave NW Inf	Updated 03.24.21 Used Prairie Dog Funding \$2.25 m	\$0	Permanent Flood Protection		\$200,000
2021 Total		\$635,088	NW Storm Sewer Phase 2 - 6th Ave NW/4th St NW & Secarse Dr, 6th and 7th Str NW from 5-6 Ave	Update 01/23 protest period Bal 3.253m Prairie Dog	\$793,859
			Seal Coat 50-75 blocks see 5 YR Infrastructure Plan		\$301,500
			NW Quad M&O Valley View	4/27/2023	\$250,000
			Point Repairs & Man Holes	4/27/2023	\$250,000
			SE Mill & Overlay	4/27/2023	\$500,000
			Reline 6th Ave NE & Valley View	4/27/2023	\$225,000
			County Hwy 21/Woodland Park Shared-Use Path-County Lead	4/24/2023	\$65,000
			Total 2024		\$2,585,359

1081857 - Reservoir D Supply Pipeline Project

Application Details

Funding Opportunity:	22356-State Fiscal Year 2023-2024 Infrastructure Request	Initial Submit Date:	Oct 24, 2023 11:47 AM
Funding Opportunity Due Date:	Jun 30, 2024 3:00 PM	Initially Submitted By:	Abby Ritz
Program Area:	Funding for Infrastructure in ND - FIND	Last Submit Date:	
Status:	Under Review	Last Submitted By:	
Stage:	Final Application		

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Mr. Jerry
Salutation First Name

Middle Name Blomeke
Last Name

Title: General Manager

Email*:
jerry.blomeke@cassruralwaterdistrict.com

Address*: P.O. Box 98
131 Maple Street

Organization Information

Status*: Approved

Name*: Cass Rural Water District

Organization Type*: Political Subdivision

Tax Id: 450323383

Organization Website:

Address*: P.O. Box 98
131 Maple Street

	Kindred North Dakota	Kindred North Dakota
	City State/Province	City State/Province
58051		58051-_____
Postal Code/Zip		Postal Code/Zip
Phone*:	(218) 790-1299 Ext. Phone ###-###-####	Phone*: (218) 790-1299 Ext. ###-###-####
Fax:	(701) 428-3130 ###-###-####	Fax: (701) 428-3130 ###-###-####
Comments:		Benefactor:
		Vendor ID:
		PeopleSoft Supplier ID:
		Comments:
		Location Code:
		SAM.gov Entity ID:
		SAM.gov Name:
		SAM.gov Entity ID Expiration Date:
		State Issued ID:
		Category #:
		Year Begin:
		Year Closed:
		NCES#:

Restricted 0.00%
Indirect Cost
Rate:

Unrestricted 0.00%
Indirect Cost
Rate:

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: CRWD Reservoir D Supply Pipeline Project

Sponsor(s)*: Cass Rural Water District

County*: Cass

City*: Kindred

Description of Request*: New

If Study, What Type:

If Project/Program, What Type: Rural Water Supply

Jurisdictions/Stakeholders Involved*:

Cass Rural Water District

Describe the Problem*:

In recent years, CRWD has seen increased demands from many users across their water system resulting in lower water pressure during times of peak water use.

Provide Project Details, Objectives and Solutions to Address Problem*:

This project includes roughly 9.5 miles of new watermain, which will significantly enhance CRWD capacity to convey more water from Reservoir B to Reservoir D and improve system pressures throughout the Reservoir D service area.

For this project,

Choose City, County, Water District or Other*: Water District

What is the Current Estimated Population?*: 20903

For this project,

What is the Benefited Population?*: 3000

Have Assessment Districts Been Formed?*: N/A

Have Land or Easements Been Acquired?*: No

Are There Any Properties with Wells, Drain Fields, or Holding Tanks Within the Project Area That Will Benefit from the Project?*: No

Are There Any Road Improvements Included as Part of the Project?*: No

Have You Applied For Any Federal Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Have You Applied for any State Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Have You Applied for any Local Permits?*: No

If Yes or Ongoing, Please Explain
(include type/number):

Do You Expect Any Obstacles to Implementation (i.e. Problems with Land Acquisition, Permits, Funding, Local Opposition, Environmental Concerns, etc.)?*: No

Have You Received, or Do You Anticipate Receiving Federal Funding? No
(Example: Hazard Mitigation Grant Program)
*:

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: Complete

Design Completion*: 01/2024

Bid*: 02/2024

Construction Start*: 05/2024

Construction Completion*: 11/2024

Explain Additional Timeline Issues*:

No issues anticipated.

Consulting Engineer*: Kellen Grubb

Engineer Telephone Number*: 701-364-9111

Engineer Email*: Kellen.Grubb@AE2S.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Jerry Blomeke 10/24/2023
First Name Last Name Date

Address*: PO Box 98
Address Line 1
Address Line 2
Kindred North Dakota 58051-0098
City State Zip Code

Telephone Number*: 701-428-3139

Sponsor Email*: jerry.blomeke@cassruralwaterdistrict.com

I Certify That, to the Best of My Knowledge, the Provided Information is True and Accurate*: Yes

Authorized Individual*: Jerry Blomeke 10/24/2023
First Name Last Name Date

Title/Position/Authority*: General Manager

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If Yes, Add Boundary to Project Specific Map.*: No

[CLICK HERE to see examples.](#)

Project Specific Map 2 - Project Overview Map.pdf

Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community

***:**

**Are You Seeking Department
of Water Resources Cost-
Share?***: Yes

**Are You Seeking Cost-Share
for a Main Street Initiative
Related Project?:** No

**Attach Completed
Comprehensive Plan:**

[CLICK HERE for SFN 61801 Delineation of Costs Instructions and Current Version.](#)

**Delineation of Costs SFN
61801:** 3 - Delineation of Costs 10-20-23.xlsx

Type of Request: Preconstruction

Water Supply Projects?: Yes

[CLICK HERE for Life Cycle Cost Analysis Instructions and Current Version, as Shown on Title Tab.](#)

Life Cycle Cost Analysis: 4 - LCCA - 10-20-23.xlsx

[CLICK HERE for Basic Asset Inventory and Capital Improvement Plan Instructions and Current Version, as Shown on Title Tab.](#)

**Capital Improvement Plan
SFN 61938:** 5 - CIP 10-20-23.xlsx

Asset Inventory Assessment:

Rural Flood Control?: No

Drain Reconstructions?: No

**Flood Recovery Property
Acquisition?:** No

**Community Flood Control,
Rural Flood Control, Bank
Stabilization, or Snag & Clear
Project With Total Cost of
\$200,000 or More?:** No

**Sovereign Land Permit, if
Required:**

**DWR Construction Permit, if
Required:**

**Conditional Letter of Map
Revision (CLOMR), if
Required:**

Feasibility/Engineering Study No
for the Proposed Project:

Photos of Problem/Issue:

Other Applicable Yes
Document(s):

Other Applicable Document: 1 - CRWD Letter of Support.pdf

Other Applicable Document:

Other Applicable Document:

Sources

Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

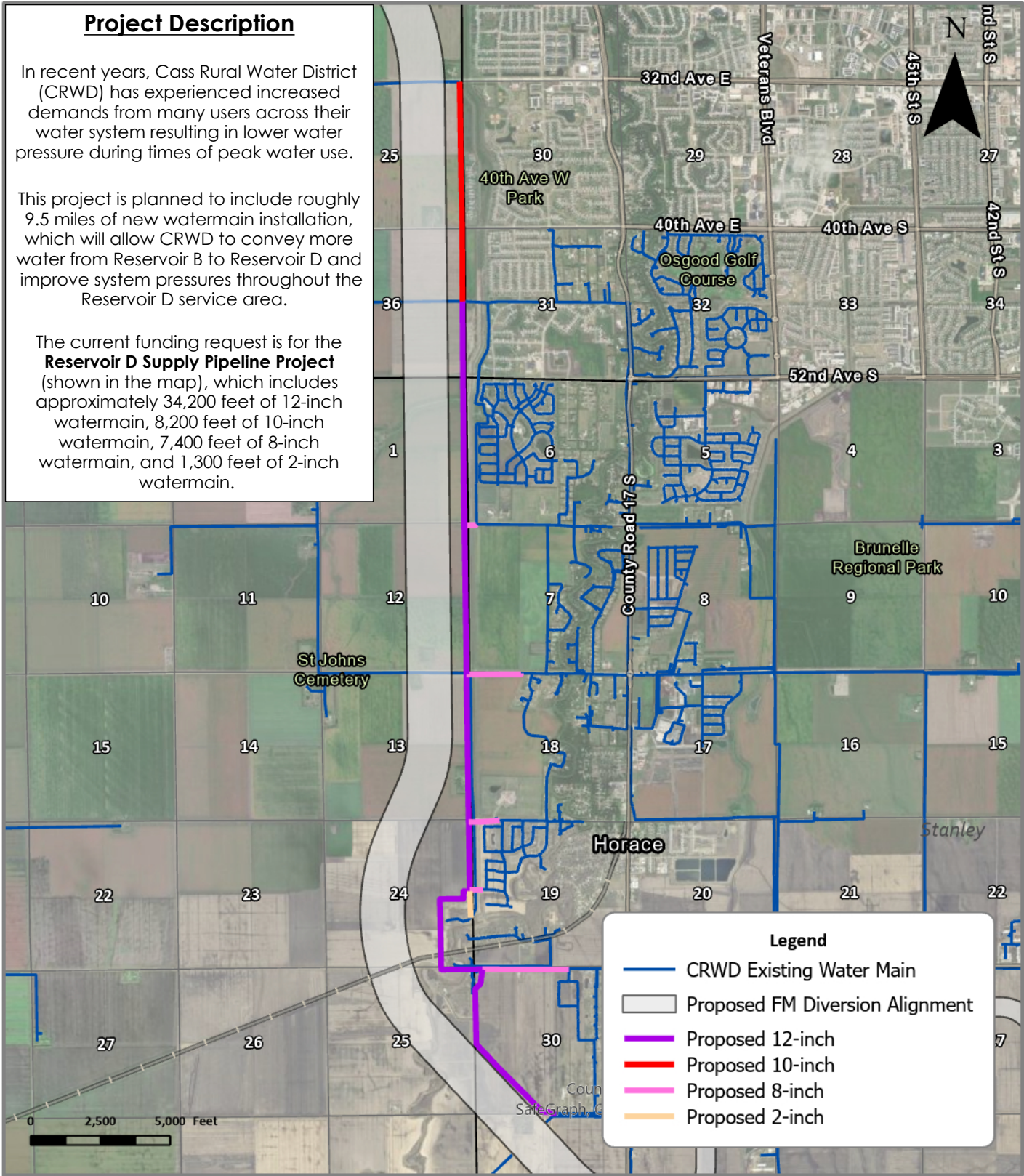
Source	If Other, Specify Funding Source	State Fiscal			Total Cost	Type	Term	Interest Rate
		Year 1 July to June	State Fiscal Year 2 July to June	Beyond Current Biennium				
Department of Water Resources Cost Share Construction		\$0.00	\$3,867,300.00	\$0.00	\$3,867,300.00		0.00	0.00
Department of Water Resources Cost Share Pre- Construction		\$270,000.00	\$0.00	\$0.00	\$270,000.00		0.00	0.00
Drinking Water State Revolving Fund		\$90,000.00	\$1,492,140.00	\$0.00	\$1,582,140.00		0.00	0.00
		\$360,000.00	\$5,359,440.00	\$0.00	\$5,719,440.00			

Project Description

In recent years, Cass Rural Water District (CRWD) has experienced increased demands from many users across their water system resulting in lower water pressure during times of peak water use.

This project is planned to include roughly 9.5 miles of new watermain installation, which will allow CRWD to convey more water from Reservoir B to Reservoir D and improve system pressures throughout the Reservoir D service area.

The current funding request is for the **Reservoir D Supply Pipeline Project** (shown in the map), which includes approximately 34,200 feet of 12-inch watermain, 8,200 feet of 10-inch watermain, 7,400 feet of 8-inch watermain, and 1,300 feet of 2-inch watermain.



Information depicted may include data unverified by AE2S. Any reliance upon such data is at the user's own risk. AE2S does not warrant this map or its features are either spatially or temporally accurate. Coordinate System: NAD 1983 StatePlane North Dakota South FIPS 3302 Feet | Edited by: RGroth | W:\C\Cass Rural Water District\05024-2023-005\GIS\CRWD 2024 SWDI - Mapping and Analysis.aprx | CRWD 2024 Diversion



Locator Map Not to Scale

Project Overview Map
Cass Rural Water District
Reservoir D Supply Pipeline Project



Date: 10/23/2023



DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (02/2023)

DWR Date Received : October 24, 2023

Project: CRWD Reservoir D Supply Pipeline Project
Sponsor: Cass Rural Water District
Contact: Jerry Blomeke, General Manager
Phone: 701-428-3139
Engineer: Kellen Grubb, AE2S
Phone: 701-364-9111

Total Cost : \$ 5,719,440
Ineligible Cost : \$ 203,000
Eligible Cost : \$ 5,516,440
Local Cost : \$ 1,582,140

Date: October 23, 2023

Cost-Share \$
\$ 4,137,300
Preconstruction : \$ 270,000
Construction : \$ 3,867,330

Project Type:

Cost-share %

Rural Water - Expansion/Improvement

75%

		Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Construction Costs								
1	4.4%	Mobilization	1	LS	200,000.00	\$ 200,000	75%	\$ 150,000
2	2.2%	Bonding	1	LS	100,000.00	\$ 100,000	75%	\$ 75,000
3	1.1%	Insurance	1	LS	50,000.00	\$ 50,000	75%	\$ 37,500
4	0.0%	Watermain Installation			-	\$ -	75%	\$ -
5	0.2%	2.0-inch DR 11 HDPE	800	LF	12.00	\$ 9,600	75%	\$ 7,200
6	4.1%	8.0-inch DR 11 HDPE	4900	LF	38.00	\$ 186,200	75%	\$ 139,650
7	8.1%	10.0-inch DR 11 HDPE	7700	LF	48.00	\$ 369,600	75%	\$ 277,200
8	45.2%	12.0-inch DR 11 HDPE	31700	LF	65.00	\$ 2,060,500	75%	\$ 1,545,375
9	0.0%	Boring - Cased			-	\$ -	75%	\$ -
10	11.0%	8.0-inch DR 11 HDPE w/ 12.0-inch DR 11	2000	LF	250.00	\$ 500,000	75%	\$ 375,000
11	0.0%	Boring - Non-Cased			-	\$ -	75%	\$ -
12	0.3%	2.0-inch DR 11 HDPE Bore	500	LF	30.00	\$ 15,000	75%	\$ 11,250
13	1.1%	8.0-inch DR 11 HDPE Bore	500	LF	100.00	\$ 50,000	75%	\$ 37,500
14	1.3%	10.0-inch DR 11 HDPE Bore	500	LF	115.00	\$ 57,500	75%	\$ 43,125
15	7.1%	12.0-inch DR 11 HDPE Bore	2500	LF	130.00	\$ 325,000	75%	\$ 243,750
16	0.0%	Gate Valves			-	\$ -	75%	\$ -
17	0.4%	8.0-inch Gate Valve	4	EA	4,500.00	\$ 18,000	75%	\$ 13,500
18	0.5%	10.0-inch Gate Valve	4	EA	6,000.00	\$ 24,000	75%	\$ 18,000
19	1.3%	12.0-inch Gate Valve	8	EA	7,500.00	\$ 60,000	75%	\$ 45,000
20	0.9%	6.0-inch Flush Hydrant	4	EA	10,500.00	\$ 42,000	75%	\$ 31,500
21	0.2%	Seeding	10	AC	800.00	\$ 8,000	75%	\$ 6,000
22	0.1%	Gravel	50	CY	50.00	\$ 2,500	75%	\$ 1,875
23	0.2%	Small Diameter Tie-in to Existing	2	EA	5,000.00	\$ 10,000	75%	\$ 7,500
24	1.2%	Large Diameter Tie-in to Existing	7	EA	7,500.00	\$ 52,500	75%	\$ 39,375
25	0.0%				-	\$ -	75%	\$ -
26	0.0%				-	\$ -	75%	\$ -
		Construction Sub-Total				\$ 4,140,400	75%	\$ 3,105,300
	10.0%	Contingency				\$ 414,040	75%	\$ 310,530
	79.6%	Construction Total				\$ 4,554,440	75%	\$ 3,415,830
Preconstruction Costs								
27	1.3%	Preliminary Design	1	LS	60,000.00	\$ 60,000	75%	\$ 45,000
28	5.7%	Final Design	1	LS	260,000.00	\$ 260,000	75%	\$ 195,000
29	0.9%	Bidding / Negotiations	1	LS	40,000.00	\$ 40,000	75%	\$ 30,000
30	0.0%		0		-	\$ -	75%	\$ -
31	0.0%		0		-	\$ -	75%	\$ -
	6.3%	Preconstruction Total				\$ 360,000	75%	\$ 270,000
Construction Engineering Costs								
32	7.2%	Project Inspection	1	LS	330,000.00	\$ 330,000	75%	\$ 247,500
33	0.4%	Post-Construction / Warranty	1	LS	20,000.00	\$ 20,000	75%	\$ 15,000
34	0.0%		0		-	\$ -	75%	\$ -
35	0.0%		0		-	\$ -	75%	\$ -
36	0.0%		0		-	\$ -	75%	\$ -
	6.1%	Construction Engineering Total				\$ 350,000	75%	\$ 262,500
Other Eligible Costs								
37	1.4%	Easement Assistance	1	LS	80,000.00	\$ 80,000	75%	\$ 60,000
38	0.4%	Easement Recording Fees	1	LS	25,000.00	\$ 25,000	75%	\$ 18,750
39	0.7%	Permit Assistance	1	LS	40,000.00	\$ 40,000	75%	\$ 30,000
40	0.3%	Permit Fees	1	LS	20,000.00	\$ 20,000	75%	\$ 15,000
41	1.5%	Crop Damage	1	LS	87,000.00	\$ 87,000	75%	\$ 65,250
	4.4%	Other Eligible Total				\$ 252,000	75%	\$ 189,000
In-eligible Costs								
42	3.2%	Easement Acquisition Fees	1	LS	183,000.00	\$ 183,000	0%	\$ -
43	0.3%	Legal Expenses	1	LS	20,000.00	\$ 20,000	0%	\$ -
44	0.0%		0		-	\$ -	0%	\$ -
45	0.0%		0		-	\$ -	0%	\$ -
	3.5%	Other Ineligible Total				\$ 203,000	0%	\$ -
100.0%		Total				\$ 5,719,440		
		Eligible Total				\$ 5,516,440	75%	\$ 4,137,330
Federal or State Funds That Supplant Costs								
						\$ -		
		Eligible Cost Total				\$ 5,516,440	75%	\$ 4,137,330

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Life Cycle Cost Analysis Review

Sponsor: Cass Rural Water District (CRWD)
Project Title: CRWD Reservoir D Supply Pipeline Project

Date: October 25, 2023

Explanation of Alternatives:

CRWD Reservoir D Supply Pipeline (Preferred) - CRWD has seen increased demands resulting in lower water pressure during times of peak water use. This project includes roughly 9.5 miles of new watermain installation, which will allow CRWD to convey more water from Reservoir B to Reservoir D and improve system pressures throughout the Reservoir D service area.

Do Nothing - The Do Nothing alternative will not alleviate these pressure and demand concerns and CRWD will likely need to implement a high level of water restrictions, which could impact rural development and growth within Cass County.

Inputs:

New Connections Served	100
Future Connections Served	1265
Current Connections Served	1500
Net Connections (New + Current)	1600

	CRWD Reservoir D Supply Pipeline (Preferred)	Do Nothing		
Construction Cost	\$5,719,400	\$0		
Annual O & M	\$10,000	\$1		

Details:

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

	CRWD Reservoir D Supply Pipeline (Preferred)	Do Nothing		
Present Value				
Capital Costs	\$5,719,000	\$0		
O&M	\$295,000	\$0		
Repair, Rehab, Replacement	\$0	\$0		
Salvage Value	\$0	\$0		
Total PVC	\$6,014,000	\$0		
PV Cost Per User	\$3,759	\$0		

Current Water Rate (Cost Per 5000g)	\$54			
Comparable Water Rate	\$47			
Net Connections (New + Current)	1,600	1,600		
Cost-Share Percent	75%	75%		
Local Share	\$1,429,750	\$0		
Other Funding	\$0	\$0		
Total Local	\$1,429,750	\$0		
Payment Per User With Cost-Share	\$4.52	\$0.00		
Local Share	\$5,719,000	\$0		
Other Funding	\$0	\$0		
Total Local	\$5,719,000	\$0		
Payment Per User Without Cost-Share	\$18.08	\$0.00		

Explanation of Results:

The sponsor preferred project is the "CRWD Reservoir D Supply Pipeline" option. The present value cost of the preferred alternative is \$6,014,000 and the presented alternative for comparison is a "Do Nothing" at a present value cost of \$0. The present value cost per user for the preferred alternative is \$3,759. The monthly user cost of the local share with DWR 75% cost-share participation is \$4.52 per month and \$18.08 without DWR participation based upon 1,600 direct user connections.

Other Comments:

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor.
 LCCA Version Version 1.2022.07.08



CAPITAL IMPROVEMENT PLAN (CIP)
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION DIVISION
SPN 61938 (7/2021)

System: Cass Rural Water District - Reservoir D Supply Pipeline Project
Date: 10/23/23

Population: 20,903
Users: 8,361

ASSET	UNITS	UNIT COST	QTY	RESERVE REPLACEMENT %	REPLACEMENT COST	AVERAGE LIFE (YRS)	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Existing Project CIP Costs									
Asset - 1.5/2-inch Water Main	Feet	\$5.00	5,787,227	50.00%	\$14,468,068	80	\$180,851	\$15,071	\$1.80
Asset - 3-inch Water Main	Feet	\$6.00	1,313,113	50.00%	\$3,939,339	80	\$49,242	\$4,103	\$0.49
Asset - 4-inch Water Main	Feet	\$8.00	1,101,122	50.00%	\$4,404,487	80	\$55,056	\$4,588	\$0.55
Asset - 5-inch Water Main	Feet	\$10.00	309,824	50.00%	\$1,549,118	80	\$19,364	\$1,614	\$0.19
Asset - 6-inch Water Main	Feet	\$20.00	616,628	50.00%	\$6,166,278	80	\$77,078	\$6,423	\$0.77
Asset - 8-inch Water Main	Feet	\$25.00	867,777	50.00%	\$10,847,219	80	\$135,590	\$11,299	\$1.35
Asset - 10-inch Water Main	Feet	\$30.00	116,071	50.00%	\$1,741,060	80	\$21,763	\$1,814	\$0.22
Asset - 12-inch Water Main	Feet	\$35.00	478,784	50.00%	\$8,378,715	80	\$104,734	\$8,728	\$1.04
Asset - 14-inch Water Main	Feet	\$40.00	21,474	50.00%	\$429,475	80	\$5,368	\$447	\$0.05
Asset - 16-inch Water Main	Feet	\$50.00	49,207	50.00%	\$1,230,181	80	\$15,377	\$1,281	\$0.15
Pump Stations	Each	\$430,000	3	50.00%	\$645,000	50	\$12,900	\$1,075	\$0.13
Pump Stations with Reservoir	Each	\$1,500,000	17	50.00%	\$12,750,000	50	\$255,000	\$21,250	\$2.54
Water Tower	Each	\$4,000,000	1	50.00%	\$2,000,000	50	\$40,000	\$3,333	\$0.40
Water Treatment Plants	LS	\$5,000,000	3	50.00%	\$7,500,000	25	\$300,000	\$25,000	\$2.99
SUBTOTAL Existing CIP Costs					\$76,048,939		\$1,272,324	\$106,027	\$12.68

New Project CIP Costs									
Asset - 2-inch Water Main	Feet	\$12.00	1,300	50.00%	\$7,800	100	\$78	\$7	\$0.00
Asset - 8-inch Water Main	Feet	\$38.00	7,400	50.00%	\$140,600	100	\$1,406	\$117	\$0.01
Asset - 10-inch Water Main	Feet	\$48.00	8,200	50.00%	\$196,800	100	\$1,968	\$164	\$0.02
Asset - 12-inch Water Main	Feet	\$60.00	34,200	50.00%	\$1,026,000	100	\$10,260	\$855	\$0.10
SUBTOTAL New CIP Costs					\$1,371,200		\$13,712	\$1,143	\$0.14

TOTAL Existing and New Project CIP					\$77,420,139		\$1,286,036	\$107,170	\$12.82
------------------------------------	--	--	--	--	--------------	--	-------------	-----------	---------

	TOTAL RESERVES	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Current:	\$12,953,751	\$750,000	\$62,500	\$7.48
Adjustment:	\$64,466,388	\$536,036	\$44,670	\$5.34

	Monthly Ave Gal/user	Monthly \$/kgal
Required	6,000	\$2.14
Current	6,000	\$1.25
Adjustment	6,000	\$0.89

Report Prepared by (Title): Kellen Grubb AE2S Project Engineer
Date: 10/23/23

Notes:

Instructions

- 1 - Fill in colored items
- 2 - Enter Existing asset project CIP costs
- 3 - Enter New asset project CIP costs
- 4 - Enter current total reserves and annual reserve



October 23, 2023

Department of Water Resources
Governor Doug Burgum, Chairman
1200 Memorial Highway
Bismarck, ND 58504-5262

Re: Preconstruction Cost-Share Request for Reservoir D Supply Pipeline Project – Cass Rural Water District

Dear Governor Burgum and Commission Members:

Cass Rural Water District (CRWD) is pleased to submit a preconstruction cost-share request through WebGrants for consideration at the upcoming December 8, 2023 Water Commission meeting. The focus of this current funding request is for the Reservoir D Supply Pipeline Project.

In recent years, CRWD has experienced increased demands from many users across their water system resulting in lower water pressure during times of peak water use. This proposed project is planned to include roughly 9.5 miles of new watermain installation, which will significantly enhance CRWD capacity to convey more water from Reservoir B to Reservoir D and improve system pressures throughout the Reservoir D service area.

Our current funding request is for the Reservoir D Supply Pipeline Project, which includes approximately 34,200 feet of 12-inch watermain, 8,200 feet of 10-inch watermain, 7,400 feet of 8-inch watermain, and 1,300 feet of 2-inch watermain.

Thank you for considering CRWD's preconstruction cost-share application request. This cost-share application helps provide much needed funding for CRWD and their growing regional water system. If you have any further questions, please do not hesitate to contact me at (701) 364-9111.

Sincerely,

AE2S

Kellen Grubb, PE
Project Manager

CC: Jerry Blomeke, General Manager, CRWD

1081876 - SEWUD - West WTP Improvements Project

Application Details

Funding Opportunity:	22356-State Fiscal Year 2023-2024 Infrastructure Request	Initial Submit Date:	Oct 24, 2023 2:54 PM
Funding Opportunity Due Date:	Jun 30, 2024 3:00 PM	Initially Submitted By:	Abby Ritz
Program Area:	Funding for Infrastructure in ND - FIND	Last Submit Date:	
Status:	Under Review	Last Submitted By:	
Stage:	Final Application		

Contact Information

Primary Contact Information

Active User*:	Yes
Type:	External User
Name:	Salutation Abby First Name
Middle Name	Ritz Last Name
Title:	
Email*:	abby.ritz@ae2s.com
Address*:	1815 Schafer Street, Suite 301

Organization Information

Status*:	Approved
Name*:	Southeast Water Users District
Organization Type*:	Political Subdivision
Tax Id:	45-0345414
Organization Website:	https://www.seh2o.com
Address*:	206 Main St PO Box 10

AE2S	Mantador	North Dakota
Bismarck	City	State/Province
58501	58058-0010	
Postal Code/Zip	Postal Code/Zip	
Phone*:	701-221-0530	701-242-7432 Ext.
	Ext.	###-###-####
	Phone	
	###-###-####	
Fax:		701-242-7807
		###-###-####
Comments:	Benefactor:	
	Vendor ID:	
	PeopleSoft	
	Supplier ID:	
	Comments:	
	Location	
	Code:	
	SAM.gov	
	Entity ID:	
	SAM.gov	
	Name:	
	SAM.gov	
	Entity ID	
	Expiration	
	Date:	
	State Issued	
	ID:	
	Category #:	
	Year Begin:	
	Year Closed:	
	NCES#:	

Restricted 0.00%
Indirect Cost
Rate:

Unrestricted 0.00%
Indirect Cost
Rate:

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: SEWUD - West WTP Improvements Project

Sponsor(s)*: Southeast Water Users District

County*: Multiple

City*: Mantador

Description of Request*: New

If Study, What Type:

If Project/Program, What Type: Rural Water Supply

Jurisdictions/Stakeholders

Involved*:

This project will address pressing concerns about the source water quality that serves three (3) North Dakota counties (Dickey, LaMoure, and Logan) encompassing approximately 970 rural members, three (3) Hutterite Colonies, three (3) individually served communities including Fredonia, Merricourt, and Nortonville, and nine (9) bulk service communities which include Berlin, Edgeley, Ellendale, Fullerton, Gackle, Guelph, Jud, Kulm, and Monango.

Describe the Problem*:

The SEWUD-West WTP, equipped with a 1,000 gpm Iron and Manganese Filtronics proprietary water filter system installed in 1996, is experiencing a decline in source water quality. Notably, elevated concentrations of iron, manganese, total dissolved solids (TDS), and hardness are adversely affecting the finished water quality. This shift in water composition has led to operational complications, with notable instances of iron and manganese concentrations impeding the effective removal to maintain compliance with the secondary maximum contaminant level (SMCL). In addition to this concern, the SEWUD-West WTP has experienced impacts ranging from scaling and deposition on pipelines and irreversible fouling of

the filter media.

**Provide Project Details,
Objectives and Solutions to
Address Problem*:**

The plan is to construct a new WTP in a strategic location adjacent to the current wellfield site, as opposed to the renovation of the existing WTP. To establish higher quality water for our users, we plan to conduct the design and construction of the WTP in a phased approach. Phase 1 of this phased approach would involve designing and constructing a new iron and manganese removal WTP that meets the inefficiencies that the current WTP exhibits. The new iron and manganese WTP would be relocated near the existing wellfield site and be designed to improve upon backwash operations and inconsistencies in the iron within our raw water. The new WTP will incorporate modern technologies and design principles to optimize backwash operations, reducing waste, and ensuring that the treatment process remains efficient and sustainable for years to come. Phase 2 will be the design and construction of advanced water treatment processes at the Phase 1 WTP to address concerns with TDS and hardness.

For this project,

**Choose City, County, Water
District or Other*:** Water District

**What is the Current
Estimated Population?*** 17950

For this project,

**What is the Benefited
Population?*** 17950

**Have Assessment Districts
Been Formed?*** N/A

**Have Land or Easements
Been Acquired?*** Yes

**Are There Any Properties
with Wells, Drain Fields, or
Holding Tanks Within the
Project Area That Will Benefit
from the Project?*** No

**Are There Any Road
Improvements Included as
Part of the Project?*** No

Have You Applied For Any Federal Permits?* No

If Yes or Ongoing, Please Explain
(include type/number):

Have You Applied for any State Permits?* Ongoing

If Yes or Ongoing, Please Explain
(include type/number):

Submitted in 2022 for DWR Water Permit #7264 Request for an additional 500 Ac-Ft that is currently under review

If Yes or Ongoing, Please Explain
(include type/number):

Have You Applied for any Local Permits?* No

If Yes or Ongoing, Please Explain
(include type/number):

Do You Expect Any Obstacles to Implementation (i.e. Problems with Land Acquisition, Permits, Funding, Local Opposition, Environmental Concerns, etc.)?* No

**Have You Received, or Do
You Anticipate Receiving
Federal Funding?**

No

(Example: Hazard Mitigation
Grant Program)

*:

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: 10/2023

Design Completion*: 09/2024

Bid*: 11/2024

Construction Start*: 03/2025

Construction Completion*: 11/2026

**Explain Additional Timeline
Issues*:**

No issues anticipated.

Consulting Engineer*: Chase Julson

**Engineer Telephone
Number*:** 701-364-9111

Engineer Email*: chase.julson@ae2s.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Steve Hansen 10/24/2023
First Name Last Name Date

Address*: PO Box 10
Address Line 1
Address Line 2

Mantador North Dakota 58058-0010
City State Zip Code

Telephone Number*: 701-242-7432

Sponsor Email*: stevehh2o@rrt.net

I Certify That, to the Best of My Knowledge, the Provided Information is True and Accurate*: Yes

Authorized Individual*: Steve Hansen 10/24/2023
First Name Last Name Date

Title/Position/Authority*: General Manager

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If Yes, Add Boundary to Project Specific Map.*: No

[CLICK HERE to see examples.](#)

Project Specific Map Cost Share Maps Final.pdf

Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community

*,

Are You Seeking Department of Water Resources Cost-Share?* Yes

Are You Seeking Cost-Share for a Main Street Initiative Related Project?: No

Attach Completed Comprehensive Plan:

[CLICK HERE for SFN 61801 Delineation of Costs Instructions and Current Version.](#)

Delineation of Costs SFN 61801: SEWUD-West WTP sfn_61801_delineation_of_cost.xlsx

Type of Request: Preconstruction

Water Supply Projects?: Yes

CLICK HERE for Life Cycle Cost Analysis Instructions and Current Version, as Shown on Title Tab.

Life Cycle Cost Analysis: SEWUD-West WTP life_cycle_cost_analysis_worksheet.xlsx

CLICK HERE for Basic Asset Inventory and Capital Improvement Plan Instructions and Current Version, as Shown on Title Tab.

Capital Improvement Plan SFN 61938: SEWUD-West WTP sfn_61938_capital_improvement_plan.xlsx

Asset Inventory Assessment:

Rural Flood Control?: No

Drain Reconstructions?: No

Flood Recovery Property Acquisition?: No

Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of \$200,000 or More?: No

Sovereign Land Permit, if Required:

DWR Construction Permit, if Required:

Conditional Letter of Map Revision (CLOMR), if Required:

Feasibility/Engineering Study for the Proposed Project: Yes

Feasibility/Engineering Study Material: SEWUD West WTP PER_Signed.pdf

Photos of Problem/Issue: Project Concern Photos.pdf

Other Applicable Document(s): Yes

Other Applicable Document: Letter of Support - SEWUD-West WTP - Signed.pdf

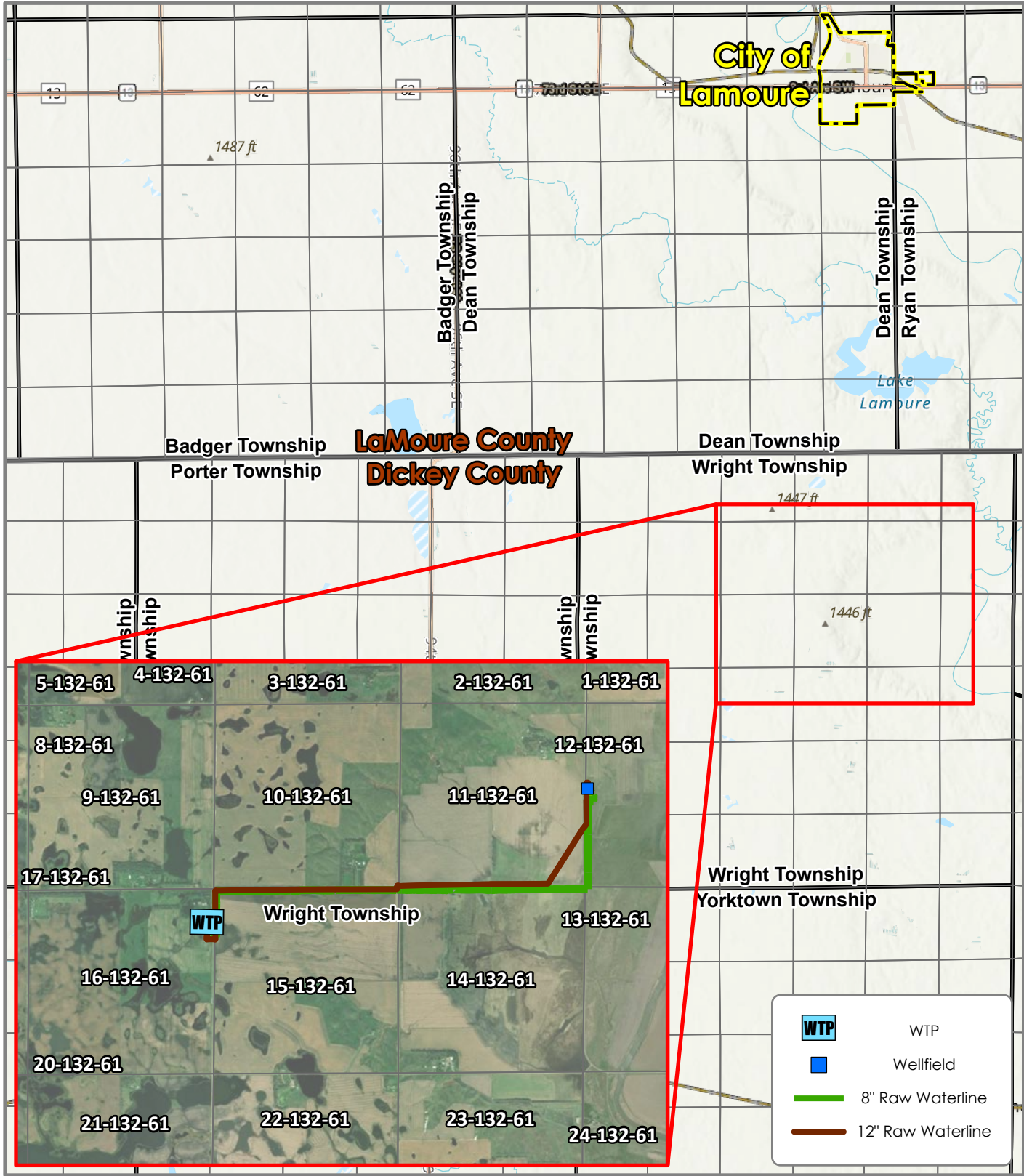
Other Applicable Document:

Other Applicable Document:

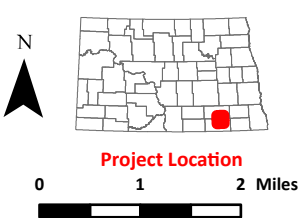
Sources

Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

Source	If Other, Specify Funding Source	State Fiscal Year 1 July to June	State Fiscal Year 2 July to June	Beyond Current Biennium	Total Cost	Type	Term	Interest Rate
Department of Water Resources Cost Share Pre- Construction		\$983,520.00 \$927,270.00	\$0.00	\$0.00	\$983,520.00		0.00	0.00
Department of Water Resources Cost Share Construction		\$0.00	\$5,923,090.00	\$5,923,090.00	\$11,846,180.00		0.00	0.00
Drinking Water State Revolving Fund		\$327,840.00	\$1,984,493.00	\$1,984,492.00	\$4,296,825.00		0.00	0.00
Department of Water Resources Cost Share Pre- Construction	Preliminary Design - Previously Awarded	\$150,000.00	\$0.00	\$0.00	\$150,000.00		0.00	0.00
Other	Cash Reserves - Preliminary Design	\$50,000.00	\$0.00	\$0.00	\$50,000.00		0.00	0.00
		\$1,511,360.00	\$7,907,583.00	\$7,907,582.00	\$17,326,525.00			
					17,251,525.00			



Information depicted may include data unverified by AE2S. Any reliance upon such data is at the user's own risk. AE2S does not warrant this map or its features are either spatially or temporally accurate. Coordinate System: NAD 1983 StatePlane North Dakota South FIPS 3302 Feet Intl | Edited by: jhenne | W:\S\SEWUD\General Services\GIS\SEWUD General Services - Mapping and Analysis.aprx | SEWUD West WTP & Well Site



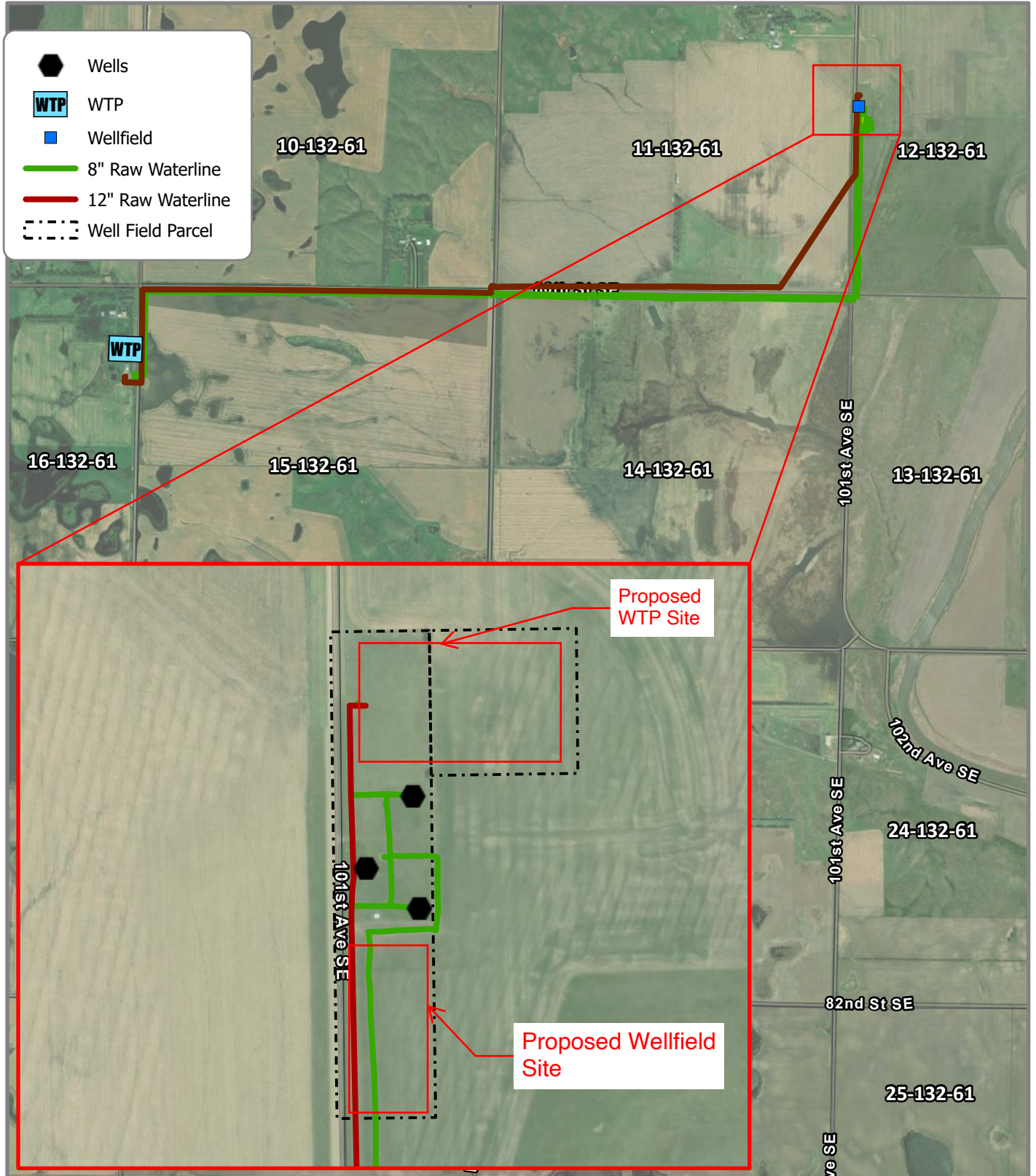
SEWUD-WEST WTP & WELL SITE

SEWUD
Wright Township | Dickey County, ND

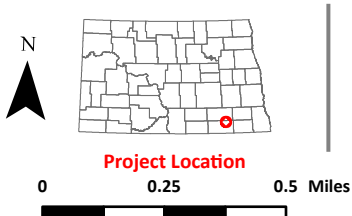
H₂O

Date: 10/20/2023

AES

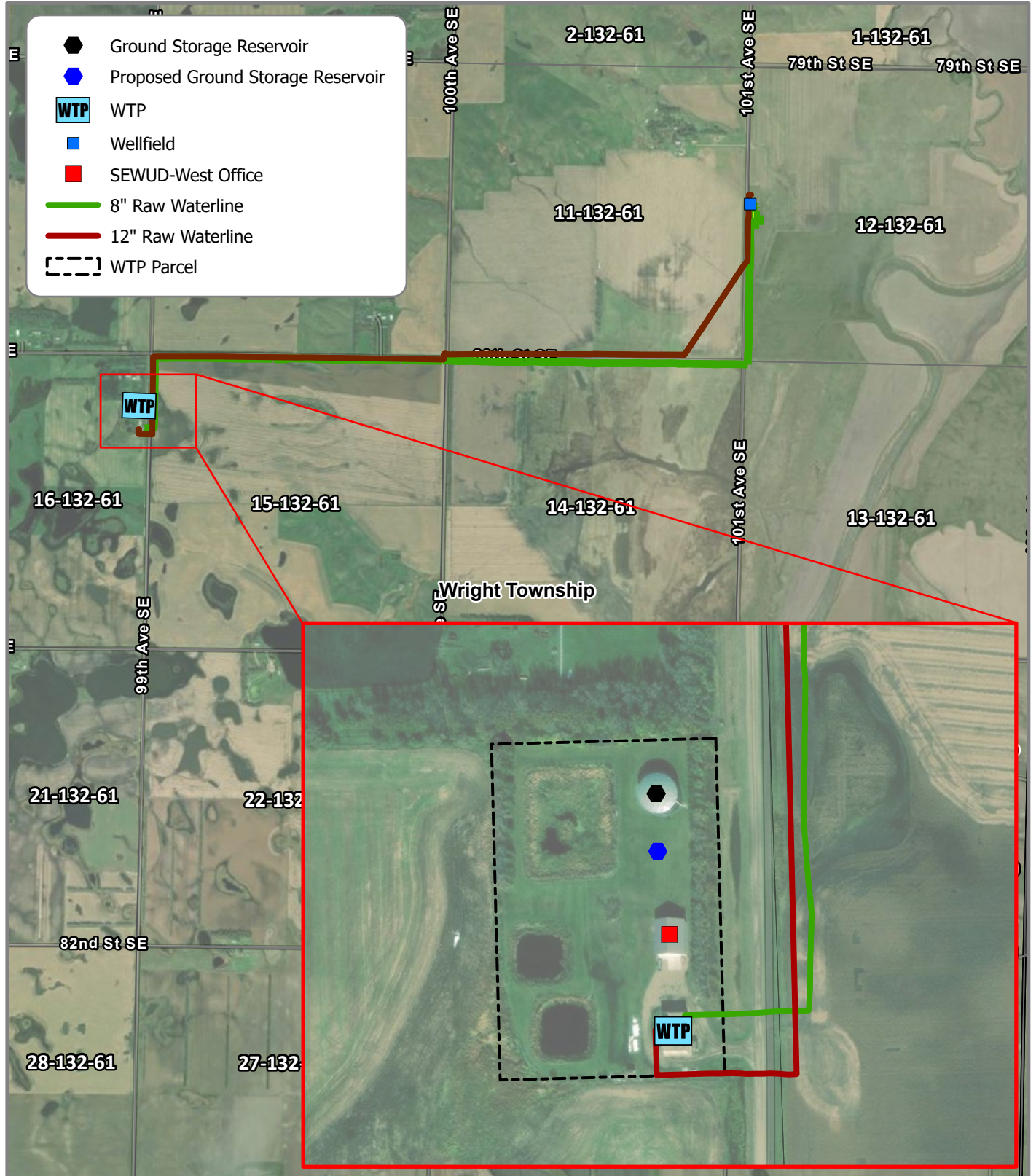


Information depicted may include data unverified by AE2S. Any reliance upon such data is at the user's own risk. AE2S does not warrant this map or its features are either spatially or temporally accurate.
Coordinate System: NAD 1983 StatePlane North Dakota South FIPS 3302 Feet Intl | Edited by: jhenne | W:\S\SEWUD\General Services\GIS\SEWUD General Services - Mapping and Analysis.aprx | SEWUD-West Existing Wellfield Site

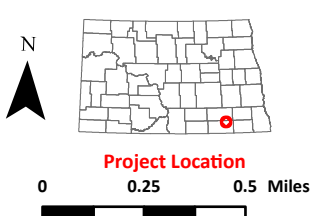


SEWUD-WEST EXISTING WELLFIELD SITE

SEWUD
Wright Township | Dickey County, ND



Information depicted may include data unverified by AE2S. Any reliance upon such data is at the user's own risk. AE2S does not warrant this map or its features are either spatially or temporally accurate.
Coordinate System: NAD 1983 StatePlane North Dakota South FIPS 3302 Feet Intl | Edited by: jhenne | W:\S\SEWUD\General Services\GIS\SEWUD General Services - Mapping and Analysis.aprx | SEWUD-West WTP Site



SEWUD-WEST WTP SITE

SEWUD
Wright Township | Dickey County, ND



DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (02/2023)

DWR Date Received : October 24, 2023

Project: SEWUD - West WTP Improvements
Sponsor: Southeast Water Users District (SEWUD)
Contact: Steve Hansen, General Manager
Phone: 701-242-7432
Engineer: Chase Julson, AE2S
Phone: 701-364-9111

Total Cost : \$ 17,251,525
Ineligible Cost : \$ 20,240
Eligible Cost : \$ 17,231,285
Local Cost : \$ 4,328,025

Date: October 23, 2023

Cost-Share \$
\$ 12,923,500

Preconstruction : \$ 1,077,270
Construction : \$ 11,846,194
Feasibility Study Previously Awarded : \$ 150,000
Current Request : \$ 927,270

Project Type: Rural Water - Expansion/Improvement
Cost-share % 75%

		Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
		Construction Costs						
1	2.4%	Mobilization	1	LS	352,773.00	\$ 352,773	75%	\$ 264,580
2	1.0%	Bonding	1	LS	140,000.00	\$ 140,000	75%	\$ 105,000
3	0.9%	Insurance	1	LS	130,000.00	\$ 130,000	75%	\$ 97,500
4	3.4%	Earthwork	1	LS	500,000.00	\$ 500,000	75%	\$ 375,000
5	4.5%	Site Work	1	LS	650,000.00	\$ 650,000	75%	\$ 487,500
6	14.5%	Concrete - Cast-In-Place	1	LS	2,100,000.00	\$ 2,100,000	75%	\$ 1,575,000
7	1.7%	Masonry	1	LS	250,000.00	\$ 250,000	75%	\$ 187,500
8	1.1%	Building	1	LS	160,000.00	\$ 160,000	75%	\$ 120,000
9	0.1%	Fire Protection	1	LS	10,000.00	\$ 10,000	75%	\$ 7,500
10	3.4%	Mechanical	1	LS	500,000.00	\$ 500,000	75%	\$ 375,000
11	30.1%	Filter Equipment	2	EA	2,181,250.00	\$ 4,362,500	75%	\$ 3,271,875
12	2.8%	Process Pipes, Valves, Fittings	1	LS	400,000.00	\$ 400,000	75%	\$ 300,000
13	5.0%	Reservoir and Storage - Metal	1	EA	720,000.00	\$ 720,000	75%	\$ 540,000
14	12.4%	Electrical	1	LS	1,800,000.00	\$ 1,800,000	75%	\$ 1,350,000
15	1.4%	Ice Piggging	1	LS	200,000.00	\$ 200,000	75%	\$ 150,000
16	6.4%	Groundwater Wells	1	LS	922,000.00	\$ 922,000	75%	\$ 691,500
17	0.0%		0		-	\$ -	75%	\$ -
18	0.0%		0		-	\$ -	75%	\$ -
19	0.0%		0		-	\$ -	75%	\$ -
20	0.0%		0		-	\$ -	75%	\$ -
21	0.0%		0		-	\$ -	75%	\$ -
22	0.0%		0		-	\$ -	75%	\$ -
23	0.0%		0		-	\$ -	75%	\$ -
24	0.0%		0		-	\$ -	75%	\$ -
25	0.0%		0		-	\$ -	75%	\$ -
26	0.0%		0		-	\$ -	75%	\$ -
		Construction Sub-Total				\$ 13,197,273	75%	\$ 9,897,955
	10.0%	Contingency				\$ 1,319,727	75%	\$ 989,795
	84.1%	Construction Total				\$ 14,517,000	75%	\$ 10,887,750
		Preconstruction Costs						
27	1.4%	Preliminary Design	1	LS	200,000.00	\$ 200,000	75%	\$ 150,000
28	7.9%	Final Design	1	LS	1,141,360.00	\$ 1,141,360	75%	\$ 856,020
29	0.5%	Bidding / Negotiations	1	LS	75,000.00	\$ 75,000	75%	\$ 56,250
30	0.1%	Archeological Study	1	LS	20,000.00	\$ 20,000	75%	\$ 15,000
	8.3%	Preconstruction Total				\$ 1,436,360	75%	\$ 1,077,270
		Construction Engineering Costs						
#REF!	3.1%	Construction Contract Management	1	LS	450,000.00	\$ 450,000	75%	\$ 337,500
#REF!	3.1%	Project Inspection	1	LS	450,000.00	\$ 450,000	75%	\$ 337,500
#REF!	2.5%	I&C System Services	1	LS	362,925.00	\$ 362,925	75%	\$ 272,194
#REF!	0.1%	Post-Construction / Warranty	1	LS	15,000.00	\$ 15,000	75%	\$ 11,250
#REF!	0.0%		0		-	\$ -	75%	\$ -
	7.4%	Construction Engineering Total				\$ 1,277,925	75%	\$ 958,444
		Other Eligible Costs						
#REF!	0.0%		0		-	\$ -	75%	\$ -
#REF!	0.0%		0		-	\$ -	75%	\$ -
#REF!	0.0%		0		-	\$ -	75%	\$ -
#REF!	0.0%		0		-	\$ -	75%	\$ -
#REF!	0.0%		0		-	\$ -	75%	\$ -
	0.0%	Other Eligible Total				\$ -	75%	\$ -
		In-eligible Costs						
#REF!	0.1%	Property Acquisitions	1	LS	15,240.00	\$ 15,240	0%	\$ -
#REF!	0.0%	Legal Expenses	1	LS	5,000.00	\$ 5,000	0%	\$ -
#REF!	0.0%		0		-	\$ -	0%	\$ -
	0.1%	Other Ineligible Total				\$ 20,240	0%	\$ -

100.0% **Total** \$ 17,251,525
Eligible Total \$ 17,231,285 75% \$ 12,923,464

Federal or State Funds That Supplant Costs \$ -
Eligible Cost Total \$ 17,231,285 75% \$ 12,923,464

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Life Cycle Cost Analysis Review

Sponsor: Southeast Water Users District (SEWUD) **Date:** October 25, 2023
Project Title: SEWUD - West Water Treatment Plant (WTP) Improvements

Explanation of Alternatives:

Do Nothing - This Alternative does not address treatment quantity, quality, backwash water management, or age of existing infrastructure.

Iron and Manganese WTP at Wellfield (Preferred) - Build a new water treatment plant near the existing wellfield site.

New RO/NF WTP at Wellfield – This is not an alternative.

Expansion of Existing WTP - Implement a third iron and manganese filtration skid at the existing water treatment plant site and the replacement of the existing WTP skids, all pumps, motors, and electrical processes that have reached useful/design life.

Inputs:

New Connections Served	0			
Future Connections Served	0			
Current Connections Served	970			
Net Connections (New + Current)	970			
	Do Nothing	Iron and Manganese WTP at Wellfield (Preferred)	New RO/NF WTP at Wellfield (Irrelevant)	Expansion of Existing WTP
Construction Cost	\$0	\$17,326,500		\$13,087,200
Annual O & M	\$450,000	\$350,000		\$475,000

Details:

Do Nothing - This Alternative does not address treatment quantity, quality, backwash water management, or age of existing infrastructure.

Iron and Manganese WTP at Wellfield (Preferred) - Build a new water treatment plant near the existing wellfield site. This will allow SEWUD to consolidate the treatment facilities and appurtenances to a centralized site and eliminate concerns of detention time in the existing raw water pipeline that has experienced significant iron deposition in the pipeline. This new site will provide ample space to implement additional treatment processes in the future, i.e. Reverse Osmosis (RO)/Nanofiltration (NF) to assist in treating hardness and total dissolved solids (TDS).

New RO/NF WTP at Wellfield – This is not an alternative.

Expansion of Existing WTP - This alternative involves the implementation of a third iron and manganese filtration skid at the existing water treatment plant site and the replacement of the existing WTP skids, all pumps, motors, and electrical processes that have reached useful/design life. This alternative will assist in meeting the additional water demand needs that the system has seen. However, this alternative does not allow SEWUD-West to implement future advanced water treatment plant processes and does not address backwash water management concerns.

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	Do Nothing	Iron and Manganese WTP at Wellfield (Preferred)	New RO/NF WTP at Wellfield (Irrelevant)	Expansion of Existing WTP
Capital Costs	\$0	\$16,948,000		\$12,944,000
O&M	\$13,729,000	\$9,650,000		\$13,550,000
Repair, Rehab, Replacement	\$0	\$12,905,000		\$11,797,000
Salvage Value	\$0	\$2,114,000		\$1,205,000
Total PVC	\$13,729,000	\$37,389,000		\$37,086,000
PV Cost Per User	\$14,154	\$38,545		\$38,233

Current Water Rate (Cost Per 5000g)	\$65			
Comparable Water Rate	\$76			
Net Connections (New + Current)	970	970		970
Cost-Share Percent	75%	75%		75%
Local Share	\$0	\$4,237,000		\$3,236,000
Other Funding	\$0	\$0		\$0
Total Local	\$0	\$4,237,000		\$3,236,000
Payment Per User With Cost-Share	\$0.00	\$22.10		\$16.88
Local Share	\$0	\$16,948,000		\$12,944,000
Other Funding	\$0	\$0		\$0
Total Local	\$0	\$16,948,000		\$12,944,000
Payment Per User Without Cost-Share	\$0.00	\$88.39		\$67.51

Explanation of Results:

The sponsor preferred project is the “Iron and Manganese WTP at Wellfield” option. The present value cost of the preferred alternative is \$37,389,000 and the presented alternative for comparison is a “Expansion of Existing WTP” at a present value cost of \$37,086,000. The present value cost per user for the preferred alternative is \$14,154. The monthly user cost of the local share with DWR 75% cost-share participation is \$22.10 per month and \$88.39 without DWR participation based upon 970 direct user connections.



SOUTHEAST WATER USERS

PO Box 10
MANTADOR, ND 58058
PHONE (701) 242-7432
FAX (701) 242-7807

October 24, 2023

Department of Water Resources
Governor Doug Burgum
Chairman
900 East Boulevard Ave.
Dept 770
Bismarck, ND 58505-0850

Re: Cost-Share Request WebGrants ID 1081876

Dear Governor Burgum and Commission Members:

Southeast Water Users District (SEWUD) is writing to request funding for a critical design project aimed at enhancing the water quality and extending the useful life of the SEWUD-West Water Treatment Plant (WTP). This project will address pressing concerns about the source water quality that serves three (3) North Dakota counties (Dickey, LaMoure, and Logan) encompassing approximately 970 rural members, three (3) Hutterite Colonies, three (3) communities served on an individual basis including Fredonia, Merricourt, and Nortonville and nine (9) bulk service communities which include Berlin, Edgeley, Ellendale, Fullerton, Gackle, Guelph, Jud, Kulm, and Monango.

Current Situation and Challenges:

The SEWUD-West WTP, equipped with a 1,000 gpm Iron and Manganese Filtronics proprietary water filter system installed in 1996, is experiencing a decline in source water quality. Notably, elevated concentrations of iron, manganese, total dissolved solids (TDS), and hardness are adversely affecting the finished water quality. This shift in water composition has led to operational complications, with notable instances of iron and manganese concentrations impeding the effective removal to maintain compliance with the secondary maximum contaminant level (SMCL). In addition to this concern, the SEWUD-West WTP has experienced impacts ranging from scaling and deposition on pipelines and irreversible scaling of the filter media.

Financial Implications:

To mitigate these challenges, significant financial resources have been allocated for operation and maintenance (O&M) and replacements. For instance, the filter media, typically replaced every 20 years, now requires replacement after only four (4) years of service. This increases our operational costs for the

filter media replacement, which are now estimated at nearly \$50,000 per replacement. Furthermore, addressing scaling and plugging of the raw water supply pipelines has led to incurred costs exceeding \$120,000. See attached photos for specific examples as they relate to filter media degradation and scaling of the raw water supply pipeline. These costs highlight the urgent need for improvements within our current operations.

Operational Efficiency and Capacity Concerns:

The existing raw water line continually becomes plugged from oxidized iron. This issue creates significant concerns because during times when we need to increase our water demands, there is an increased risk for large amounts of iron build-up to “slough off” the raw water line and enter into our treatment process. Our treatment is currently not designed to handle these situations, which has resulted in the shorter filter media life described above. Additionally, this impacts our water quality and creates potential concerns.

The escalating water quality issues have reduced operational efficiency, resulting in much shorter run times between filter backwashes. This directly impacts the holding capacity within our existing backwash ponds, which our staff already currently struggle to operate efficiently due to the limited size and space on our current property. The increased backwashes also reduce the amount of potable water that we have available to send out to our customers. In light of a recent System Wide Expansion Project which added over 150 new users (18% increase) and potential drought conditions, it is imperative to assess the impact of these inefficiencies on our available water and ultimate plant capacity.

The Path Forward:

Recognizing the critical nature of these challenges, SEWUD is committed to finding a sustainable solution. This is the first step in a comprehensive plan that will guide us towards providing superior water service to our customers. Upon completion of the design, SEWUD would also be seeking funding for construction dollars for the implementation of the identified solution.

The comprehensive plan is to construct a new WTP in a strategic location adjacent to the current wellfield site, as opposed to the renovation of the existing WTP. This funding request is grounded in a thorough analysis of the current state of our water infrastructure and a forward-looking perspective on the evolving demands of our regional water system. To establish higher quality water for our users, we plan to conduct the design and construction of the WTP in a phased approach. Phase 1 of this phased approach would involve designing and constructing a new iron and manganese removal WTP that meets the inefficiencies that the current WTP exhibits. The new iron and manganese WTP would be relocated near the existing wellfield site and be designed to improve upon backwash operations and inconsistencies in the iron within our raw water. The new WTP will incorporate modern technologies and design principles to optimize backwash operations, reducing waste, and ensuring that the treatment process remains efficient and sustainable for years to come.

Optimization of Phase 1 is extremely important in order that Phase 2 of this project, which would entail the design and construction of a reverse osmosis (RO) or nanofiltration (NF) treatment train can be

designed efficiently. The iron and manganese portion of the WTP will ultimately serve as pretreatment for the RO treatment train, allowing SEWUD to provide a water treatment process that can effectively remove contaminants such as total dissolved solids, hardness, and emerging contaminants.

Furthermore, it would be very difficult to provide this type of treatment system that is desired in Phase 2 within the existing WTP's limited footprint. The space not only creates a bottleneck for the anticipated expansion of Phase 2 RO/NF treatment, but it also would require a significant amount of pipe to be installed for the RO/NF concentrate discharge line, assuming this would be discharged back to the James River. The proposed new WTP offers a larger and more adaptable footprint, allowing for seamless integration of future RO/NF expansions. This proactive approach ensures our ability to meet the growing water demands of our regional system.

The existing WTP would be converted into a pump station for the strategic repurposing of infrastructure. This transformation capitalizes on existing assets, minimizing waste, and maximizing resource utilization. It also allows for a seamless transition of services while minimizing disruption to our users.

Additionally, as a part of this project, we would design the integration of a second ground storage reservoir at the site. This would provide an invaluable layer of redundancy and resilience to our water supply and distribution network and help to ensure a reliable water supply during peak demand periods, drought conditions, and emergency situations, bolstering our ability to serve our customers.

Request for Cost-Share Funding:

Attached is a preliminary engineering report (PER), project maps, preconstruction Delineation of Project Costs, Life Cycle Cost Analysis (LCCA), and Capital Improvements Plan for evaluating the various alternatives. The original cost share funding for the Feasibility Study/Preliminary Engineering Report outlined three potential alternatives, including finding a new source water location, implementing a pretreatment process, and partnering with a local water service provider. However, the study indicated that there was a lack of available space at the existing WTP to implement a pretreatment process, groundwater aquifer evaluations yielded disappointing results, and local water service providers lacked additional capacity to support the demands of our system. As such, the PER and LCCA evaluates four alternatives, Do Nothing, New Iron and Manganese Removal WTP at the Wellfield, New RO/NF WTP at the Wellfield, and Expansion of the Existing WTP.

As outlined above and in the PER, the preferred Alternative is to implement the New Iron and Manganese Removal WTP at the Wellfield site as Phase 1. Upon completion of Phase 1, Phase 2 will be designed and construction which will entail the expansion of the WTP constructed in Phase 1 to implement advanced water treatment process such as RO/NF treatment trains to enable the ability to properly mitigate concerns associated with elevated concentrations of TDS, hardness, potential emerging contaminants, etc. This phased approach will allow us ample time to pilot test water treatment processes to assess and implement cost effective advanced water treatment processes.

In conclusion, the construction of a new Water Treatment Plant, coupled with the well-considered selection of wellfield locations, embodies a forward-looking and strategic investment in the long-term sustainability and effectiveness of our water infrastructure. We kindly request cost-share funding from

the North Dakota Department of Water Resources through the State Water Commission to facilitate this vital feasibility study.

Thank you for considering our preconstruction cost-share application request. Approval of this cost-share application provides a significant role in providing high quality drinking water to rural residents of North Dakota at a reasonable cost. If you have any further questions, please do not hesitate to contact me at (701) 242-7432.

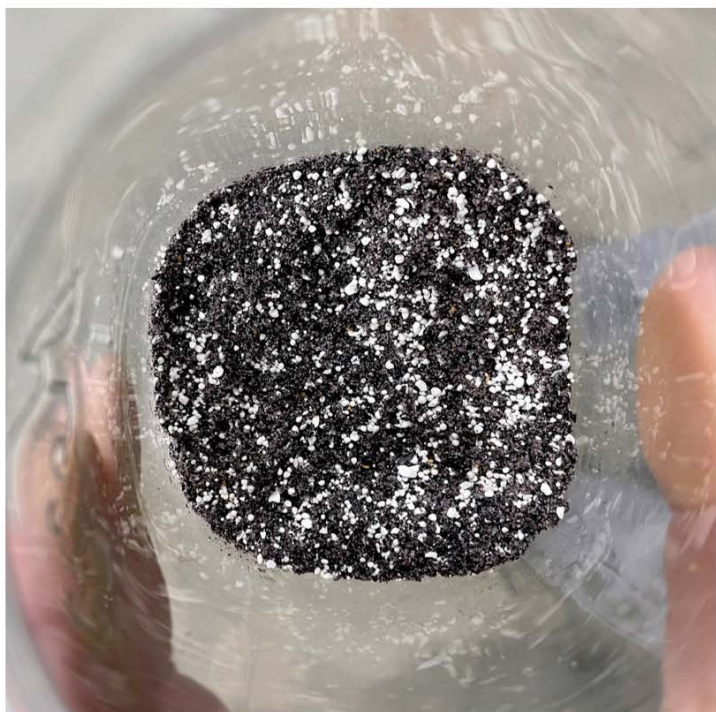
Sincerely,

SEWUD

A handwritten signature in blue ink, appearing to read "Steve Hansen", is written over a horizontal line.

Steve Hansen
General Manager

CC: Chase Julson, Project Manager, AE2S



SEWUD-West Filter Media New Media (L) and Media after 3-years of use (R)



SEWUD-West 6-inch Raw Water Supply Line – Iron Build-Up (2019)



SEWUD-West 12-inch Raw Water Supply Line – Iron Build-Up (2017)



CAPITAL IMPROVEMENT PLAN (CIP)
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION DIVISION
SFN 61938 (7/2021)

System: Southeast Water Users District (SEWUD) - SEWUD-West WTP Improvements
Date: 10/24/23

Population: 17,950
Users: 3,834

ASSET	UNITS	UNIT COST	QTY	RESERVE REPLACEMENT %	REPLACEMENT COST	AVERAGE LIFE (YRS)	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Existing Project CIP Costs									
Asset - Water Main -2-inch and less	Feet	\$6.00	10140940	10.00%	\$6,084,564	110	\$55,314	\$4,610	\$1.20
Asset - Water Main -3-inch	Feet	\$6.50	2714161	10.00%	\$1,764,205	110	\$16,038	\$1,337	\$0.35
Asset - Water Main -4-inch	Feet	\$7.50	1623333	10.00%	\$1,217,500	110	\$11,068	\$922	\$0.24
Asset - Water Main -5-inch	Feet	\$10.00	454020	10.00%	\$454,020	110	\$4,127	\$344	\$0.09
Asset - Water Main -6-inch	Feet	\$10.00	1030818	10.00%	\$1,030,818	110	\$9,371	\$781	\$0.20
Asset - Water Main -8-inch	Feet	\$12.50	756802	10.00%	\$946,003	110	\$8,600	\$717	\$0.19
Asset - Water Main -10-inch	Feet	\$15.00	206567	10.00%	\$309,851	110	\$2,817	\$235	\$0.06
Asset - Water Main -12-inch	Feet	\$18.50	149319	10.00%	\$276,240	110	\$2,511	\$209	\$0.05
Water Treatment Plants	EA	\$15,000,000.00	2	10.00%	\$3,000,000	25	\$120,000	\$10,000	\$2.61
Water Storage Facilities	EA	\$1,200,000.00	23	10.00%	\$2,760,000	50	\$55,200	\$4,600	\$1.20
SUBTOTAL Existing CIP Costs					\$17,843,200		\$285,047	\$23,754	\$6.20

New Project CIP Costs									
New WTP	EA	\$16,534,525.00	1	10.00%	\$1,653,453	25	\$66,138	\$5,512	\$1.44
New Ground Storage Reservoir	Gallons	\$792,000.00	1	10.00%	\$79,200	50	\$1,584	\$132	\$0.03
SUBTOTAL New CIP Costs					\$1,732,653		\$67,722	\$5,644	\$1.47

TOTAL Existing and New Project CIP					\$19,575,852		\$352,769	\$29,397	\$7.67
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	TOTAL RESERVES	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Current:	\$3,160,076	\$150,000	\$12,500.00	\$3.26
Adjustment:	\$16,415,776	\$202,769	\$16,897	\$4.41

	Monthly Ave Gal/user	Monthly \$/kgal
Required	6,000	\$1.28
Current	6,000	\$0.54
Adjustment	6,000	\$0.73

Report Prepared by (Title): Chase Julson (Project Manager, AE2S)
Date: 10/24/23

Notes: This spreadsheet does not account for water sales to the bulk users. The SEWUD 25 bulk users volume of water use is significant, and helps to reduce the monthly \$/kgal reserve requirement to approximately

Instructions

- 1 - Fill in colored items
- 2 - Enter Existing asset project CIP costs
- 3 - Enter New asset project CIP costs
- 4 - Enter current total reserves and annual reserve

27169 - AWUD: User and Transmission Expansion Phase 2

Application Details

Funding Opportunity:	22356-State Fiscal Year 2023-2024 Infrastructure Request
Funding Opportunity Due Date:	Jun 30, 2024 3:00 PM
Program Area:	Funding for Infrastructure in ND - FIND
Status:	Under Review
Stage:	Final Application
Initial Submit Date:	Apr 18, 2023 9:22 AM
Initially Submitted By:	Geoff Slick
Last Submit Date:	Oct 17, 2023 8:35 AM
Last Submitted By:	Geoff Slick

Contact Information

Primary Contact Information

Active User*:	Yes
Type:	External User
Name:	Mr. Geoff Slick <small>Salutation First Name Middle Name Last Name</small>
Title:	Rural Water Practice Leader
Email*:	Geoffrey.slick@ae2s.com
Address*:	6250 Driftwood Dr Grand Forks North Dakota 58201 <small>City State/Province Postal Code/Zip</small>
Phone*:	701-213-7580 Ext. <small>Phone</small> ###-###-####
Fax:	###-###-####
Comments:	

Organization Information

Status*:	Approved
Name*:	Agassiz Water Users District
Organization Type*:	Political Subdivision
Tax Id:	
Organization Website:	

Address*:

217 Main Ave

Gilby North Dakota 58235-0000
City State/Province Postal Code/Zip

Phone*:

(701) 869-2690 Ext.
####

Fax:

####

Benefactor:

Vendor ID:

PeopleSoft Supplier ID:

Comments:

Location Code:

SAM.gov Entity ID:

SAM.gov Name:

SAM.gov Entity ID Expiration Date:

State Issued ID:

Category #:

Year Begin:

Year Closed:

NCES#:

Restricted Indirect Cost Rate: 0.00%

Unrestricted Indirect Cost Rate: 0.00%

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: AWUD: User and Transmission Expansion Phase 2

Sponsor(s)*: Agassiz Water User District

County*: Grand Forks

City*: Gilby

Description of Request*: Updated (previously submitted)

If Study, What Type:

If Project/Program, What Type: Rural Water Supply

Jurisdictions/Stakeholders Involved*:

Agassiz Water User District

Describe the Problem*:

Several farmsteads within AWUD are on the current AWUD waitlist that want to be added to the system. The original system was constructed in the early 1970's. Since that time there has been an increase in user's, agricultural needs have exponentially increased, and continued industrial expansion north of the City of Grand Forks, has provided a need for larger pipelines across the system. Also, west of Manvel, a stretch of nearly 2-

miles of original pipeline is under water for up a month at a time during spring run-off and is undersized. This pipeline not only provides water to the City of Manvel but also a number of farmsteads east of there.

Provide Project Details, Objectives and Solutions to Address Problem*:

The addition of all waitlist users to the system will provide users with the ability to access to a good clean water source. The addition of a fusible HDPE pipeline from Reservoir 7 to Manvel, will help provide the city and all users east of Manvel with a pipeline capacity and reliability to ensure that the residents have access to clean reliable water that could potentially cause severe implications if failure occurred during spring run-off. The upsizing the pipeline downstream of Reservoir 1 and downstream of Reservoir 8 to the City of Grand Forks, will allow existing and new users an adequate water supply.

For this project,

Choose City, County, Water District or Other*: Water District

What is the Current Estimated Population?*: 3500

For this project,

What is the Benefited Population?*: 3500

Have Assessment Districts Been Formed?*: N/A

Have Land or Easements Been Acquired?*: Ongoing

Are There Any Properties with Wells, Drain Fields, or Holding Tanks Within the Project Area That Will Benefit from the Project?*: Yes

Are There Any Road Improvements Included as Part of the Project?*: No

Have You Applied For Any Federal Permits?*: N/A

If Yes or Ongoing, Please Explain (include type/number):

Have You Applied for any State Permits?*: N/A

If Yes or Ongoing, Please Explain (include type/number):

Have You Applied for any Local Permits?*: N/A

If Yes or Ongoing, Please Explain (include type/number):

Do You Expect Any Obstacles to Implementation (i.e. Problems with Land Acquisition, Permits, Funding, Local Opposition, Environmental Concerns, etc.)?*: No

Have You Received, or Do You Anticipate Receiving Federal Funding? No
(Example: Hazard Mitigation Grant Program)

*:

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: Winter 2022

Design Completion*: October 2023

Bid*: November 2023

Construction Start*: June 2024

Construction Completion*: November 2024

Explain Additional Timeline Issues*:

None anticipated at this time.

Consulting Engineer*: AE2S

Engineer Telephone Number*: 701-746-8087

Engineer Email*: Geoffrey.Slick@ae2s.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: John Easton 10/17/2023
First Name Last Name Date

Address*: 217 Main Ave
Address Line 1
Address Line 2

Gilby North Dakota 58235-0000
City State Zip Code

Telephone Number*: 701-869-2690

Sponsor Email*: John.Eaton@awud.net

I Certify That, to the Best of My Knowledge, the Provided Information is True and Accurate*: Yes

Authorized Individual*: John Eaton 10/17/2023
First Name Last Name Date

Title/Position/Authority*: Manager

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If Yes, Add Boundary to Project Specific Map*: No

[CLICK HERE](#) to see examples.

Project Specific Map [Project Overview Map.pdf](#)

Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community
*:

Are You Seeking Department of Water Resources Cost-Share?*: Yes

Are You Seeking Cost-Share for a Main Street Initiative Related Project?: No

Attach Completed Comprehensive Plan:

[CLICK HERE](#) for SFN 61801 Delineation of Costs Instructions and Current Version.

Delineation of Costs SFN 61801: [AWUD sfn_61801_delineation_of_cost 101723.xlsx](#)

Type of Request: Construction

Signed Plans and Specifications For Bidding: [AWUD Planset.pdf](#)

Water Supply Projects?: Yes

[CLICK HERE](#) for Life Cycle Cost Analysis Instructions and Current Version, as Shown on Title Tab.

Life Cycle Cost Analysis: [AWUD - Phase 2 LCCA 101723 Updated.xlsx](#)

[CLICK HERE](#) for Basic Asset Inventory and Capital Improvement Plan Instructions and Current Version, as Shown on Title Tab.

Capital Improvement Plan SFN 61938: [sfn_61938_capital_improvement_plan Updated.xlsx](#)

Asset Inventory Assessment:

Rural Flood Control?: No

Drain Reconstructions?: No

Flood Recovery Property Acquisition?: No

Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of \$200,000 or More?: No

Sovereign Land Permit, if Required:

DWR Construction Permit, if Required:

Conditional Letter of Map Revision (CLOMR), if Required:

Feasibility/Engineering Study for the Proposed Project: Yes

Feasibility/Engineering Study Material: [AWUD User and Transmission Expansion Phase 2 Feasibility Report.pdf](#)

Photos of Problem/Issue:

Other Applicable Document(s):

Other Applicable Document:

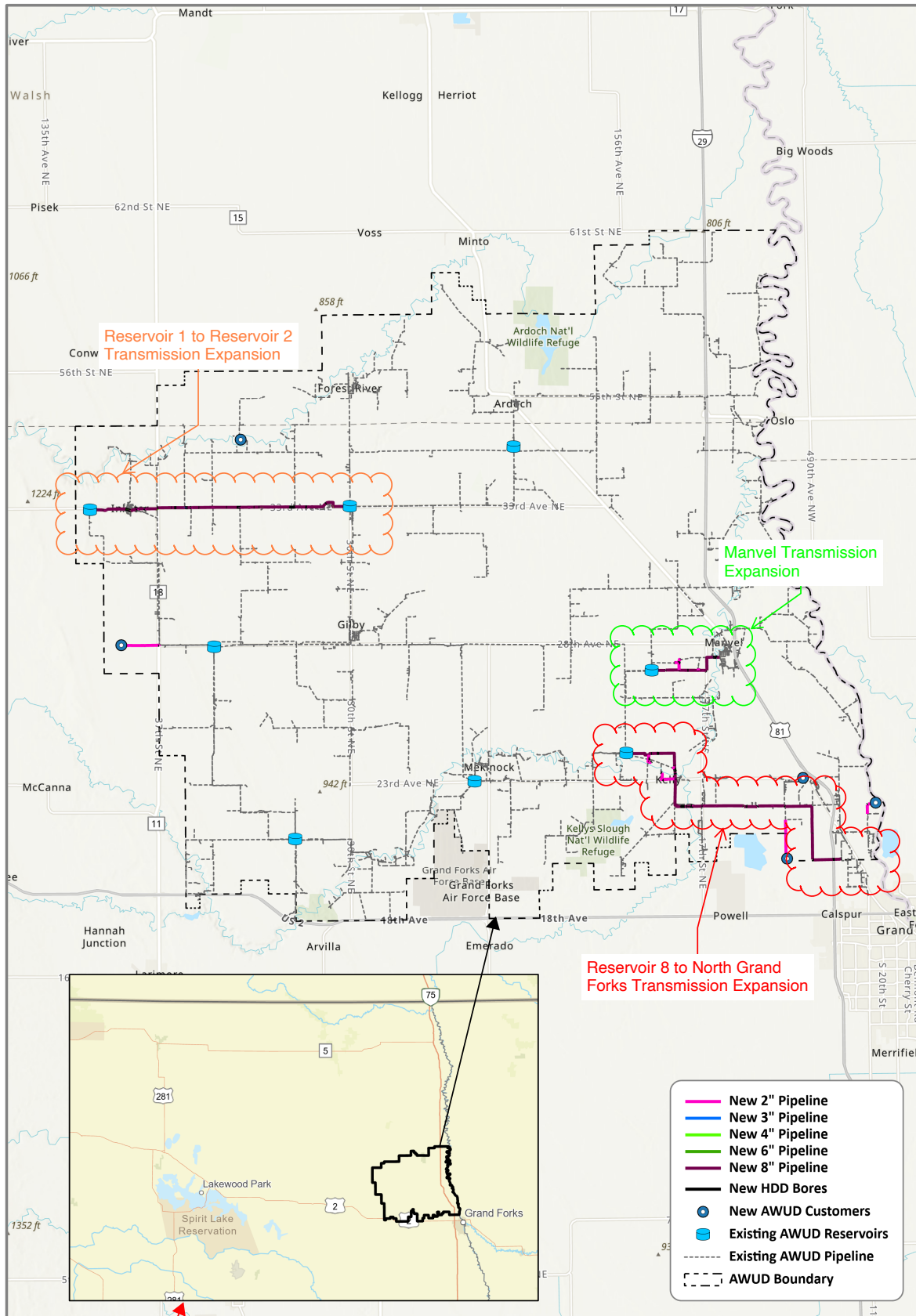
Other Applicable Document:

Other Applicable Document:

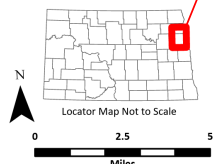
Sources

Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

Source	If Other, Specify Funding Source	State Fiscal Year 1 July to June	State Fiscal Year 2 July to June	Beyond Current Biennium	Total Cost	Type	Term	Interest Rate
Department of Water Resources Cost Share Pre-Construction		\$266,000.00	\$0.00	\$0.00	\$266,000.00	Grant	0.00	0.00
Drinking Water State Revolving Fund		\$88,666.00	\$0.00	\$0.00	\$88,666.00	Loan	30.00	2.00
Department of Water Resources Cost Share Construction	\$66,500.00 awarded 9/13/22 \$3,624,813.00 current request	\$0.00	\$3,691,314.00	\$0.00	\$3,691,314.00	Grant	0.00	0.00
Drinking Water State Revolving Fund		\$0.00	\$1,230,438.00	\$0.00	\$1,230,438.00	Loan	30.00	2.00
		\$354,666.00	\$4,921,752.00	\$0.00	\$5,276,418.00			



Information depicted may include data unverified by AE2S. Any reliance upon such data is at the user's own risk. AE2S does not warrant this map or its features are either spatially or temporally accurate.
 Coordinate System: NAD 1983 2011 StatePlane North Dakota North FIPS 3301 Ftl | Edited by: cclauson | W:\A\Agassiz WUD\00227-2020-002\GIS\PO0227-2020-002 User & Transmission Expansion Phase 2 - Mapping and Analysis.aprx | Project Overview Map



USER & TRANSMISSION EXPANSION: PHASE 2 CONSTRUCTION ONLY REQUEST

AGASSIZ WATER USERS DISTRICT
Gilby, ND



DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (02/2023)

DWR Date Received : October 17, 2023

Project: AWUD: User and Transmission Expansion - Phase 2
Sponsor: Agassiz Water User District
Contact: John Eaton, Manager
Phone: 218-779-0968
Engineer: Geoff Slick, AE2S
Phone: 701-746-8087

Total Cost : \$ 5,276,418
Ineligible Cost : \$ -
Eligible Cost : \$ 5,276,418
Local Cost : \$ 1,319,105

Date: October 16, 2023

Cost-Share \$
\$ 3,957,313
Preconstruction : \$ 251,250
Construction : \$ 3,706,063
Previously Approved : \$ 332,500
Current Request : \$ 3,624,813

Project Type: Rural Water - Expansion/Improvement
Cost-share % 75%

		Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Construction Costs								
1	4.3%	Mobilization	1		193,000.00	\$ 193,000	75%	\$ 144,750
2	0.0%	Bonding			-	\$ -	75%	\$ -
3	0.0%	Insurance			-	\$ -	75%	\$ -
4	31.4%	Reservoir 8 to GF (W Half)	1		1,421,300.00	\$ 1,421,300	75%	\$ 1,065,975
5	4.8%	New Users (5)	1		215,300.00	\$ 215,300	75%	\$ 161,475
6	12.4%	Reservoir 7 to Manvel	1		561,525.00	\$ 561,525	75%	\$ 421,144
7	36.1%	WTP to Reservoir 2	1		1,635,800.00	\$ 1,635,800	75%	\$ 1,226,850
8	0.0%				-	\$ -	75%	\$ -
9	0.0%				-	\$ -	75%	\$ -
10	0.0%				-	\$ -	75%	\$ -
11	0.0%				-	\$ -	75%	\$ -
12	0.0%				-	\$ -	75%	\$ -
13	0.0%				-	\$ -	75%	\$ -
14	0.0%				-	\$ -	75%	\$ -
15	0.0%				-	\$ -	75%	\$ -
16	0.0%				-	\$ -	75%	\$ -
17	0.0%				-	\$ -	75%	\$ -
18	0.0%				-	\$ -	75%	\$ -
19	0.0%				-	\$ -	75%	\$ -
20	0.0%				-	\$ -	75%	\$ -
21	0.0%				-	\$ -	75%	\$ -
22	0.0%				-	\$ -	75%	\$ -
23	0.0%				-	\$ -	75%	\$ -
24	0.0%				-	\$ -	75%	\$ -
25	0.0%				-	\$ -	75%	\$ -
26	1.9%	User's Previously Approved	2		44,000.00	\$ 88,000	75%	\$ 66,000
		Construction Sub-Total				\$ 4,114,925	75%	\$ 3,086,194
		Contingency				\$ 411,493	75%	\$ 308,619
	85.8%	Construction Total				\$ 4,526,418	75%	\$ 3,394,813
Preconstruction Costs								
27	0.8%	Preliminary Design	1	NA	35,000.00	\$ 35,000	75%	\$ 26,250
28	5.5%	Final Design	1	NA	250,000.00	\$ 250,000	75%	\$ 187,500
29	0.4%	Bidding / Negotiations	1	NA	20,000.00	\$ 20,000	75%	\$ 15,000
30	0.7%	Easement Assistance	1	NA	30,000.00	\$ 30,000	75%	\$ 22,500
	6.3%	Preconstruction Total				\$ 335,000	75%	\$ 251,250
Construction Engineering Costs								
31	7.5%	Project Inspection	1	NA	340,000.00	\$ 340,000	75%	\$ 255,000
32	0.0%				-	\$ -	75%	\$ -
33	0.0%				-	\$ -	75%	\$ -
34	0.0%		0		-	\$ -	75%	\$ -
35	0.0%		0		-	\$ -	75%	\$ -
	6.4%	Construction Engineering Total				\$ 340,000	75%	\$ 255,000
Other Eligible Costs								
36	1.4%	Crop Damage	1	NA	75,000.00	\$ 75,000	75%	\$ 56,250
37	0.0%		0		-	\$ -	75%	\$ -
38	0.0%		0		-	\$ -	75%	\$ -
39	0.0%		0		-	\$ -	75%	\$ -
40	0.0%		0		-	\$ -	75%	\$ -
	1.4%	Other Eligible Total				\$ 75,000	75%	\$ 56,250
In-eligible Costs								
41	0.0%	Legal Expenses	1	NA	-	\$ -	0%	\$ -
42	0.0%		0		-	\$ -	0%	\$ -
43	0.0%		0		-	\$ -	0%	\$ -
44	0.0%		0		-	\$ -	0%	\$ -
	0.0%	Other Ineligible Total				\$ -	0%	\$ -
100.0%		Total				\$ 5,276,418		
		Eligible Total				\$ 5,276,418	75%	\$ 3,957,313
Federal or State Funds That Supplant Costs								
		Eligible Cost Total				\$ 5,276,418	75%	\$ 3,957,313

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Life Cycle Cost Analysis Review

Sponsor:

Agassiz Water Users District (AWUD)

Project Title:

AWUD User Expansion & Transmission Pipeline Ph 2

Date:

October 25, 2023

Explanation of Alternatives:

User Expansion Phase 2 – Adding new connections and additional service to Manville includes 25 miles of transmission main and reservoir modifications.

Do Nothing – Fix breaks in current mains as they occur, limit total demand and leave new customers on the waitlist for service.

Build Pump Stations - Add pump stations to increase pressure to areas required. The system already has 8-reservoir/pump stations.

Inputs:

New Connections Served	7
Future Connections Served	0
Current Connections Served	3500
Net Connections (New + Current)	3507

	User Expansion Phase 2	Do Nothing	Build Pump Stations	Name of Alternative 4
Construction Cost	\$5,276,400	\$94,500	\$4,675,000	\$0
Annual O & M	\$3,000	\$35,000	\$30,000	\$0

Details:

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	User Expansion Phase 2	Do Nothing	Build Pump Stations	
Capital Costs	\$5,276,000	\$95,000	\$4,675,000	
O&M	\$88,000	\$1,032,000	\$884,000	
Repair, Rehab, Replacement	\$0	\$133,000	\$1,700,000	
Salvage Value	\$646,000	\$11,000	\$840,000	
Total PVC	\$4,718,000	\$1,249,000	\$6,419,000	
PV Cost Per User	\$1,345	\$356	\$1,830	

Current Water Rate (Cost Per 5000g)	\$98			
Comparable Water Rate	\$76			
Net Connections (New + Current)	3,507	3,507	3,507	
Cost-Share Percent	75%	75%	75%	
Local Share	\$1,319,000	\$23,750	\$1,168,750	
Other Funding	\$0	\$0	\$0	
Total Local	\$1,319,000	\$23,750	\$1,168,750	
Payment Per User With Cost-Share	\$1.90	\$0.03	\$1.69	
Local Share	\$5,276,000	\$95,000	\$4,675,000	
Other Funding	\$0	\$0	\$0	
Total Local	\$5,276,000	\$95,000	\$4,675,000	
Payment Per User Without Cost-Share	\$7.61	\$0.14	\$6.74	

Explanation of Results:

The sponsor preferred project is the “User Expansion Phase 2” option. The present value cost of the preferred alternative is \$4,718,000 and the presented alternative for comparison is a “Build Pump Stations” at a present value cost of \$6,419,000. The present value cost per user for the preferred alternative is \$1,345. The monthly user cost of the local share with DWR 75% cost-share participation is \$1.90 per month and \$7.61 without DWR participation based upon 3,507 direct user connections.

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor.

LCCA Version

Version 1.2022.07.08



CAPITAL IMPROVEMENT PLAN (CIP)
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION DIVISION
SFN 61938 (7/2021)

System: AWUD: User and Transmission Expansion - Phase 2
Date: 04/17/23

Population: 3,500
Users: 1,400

ASSET	UNITS	UNIT COST	QTY	RESERVE REPLACEMENT %	REPLACEMENT COST	AVERAGE LIFE (YRS)	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
New Project CIP Costs									
User and Transmission Expansion	L.S.	\$5,276,418.00	1	25.00%	\$1,319,105	75	\$17,588	\$1,466	\$1.05
SUBTOTAL New CIP Costs					\$1,319,105		\$17,588	\$1,466	\$1.05

TOTAL New Project CIP					\$1,319,105		\$17,588	\$1,466	\$1.05
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	TOTAL RESERVES	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Current:	\$500,000	\$24,000	\$2,000.00	\$1.43
Adjustment:	\$819,105	\$0	\$0	\$0.00

	Monthly Ave Gal/user	Monthly \$/kgal
Required	5,000	\$0.21
Current	5,000	\$0.29
Adjustment	5,000	\$0.00

Report Prepared by (Title): hn Eaton, Manager

Date: 10/17/23

Notes:

Instructions

- 1 - Fill in colored items
- 2 - Enter Existing asset project CIP costs
- 3 - Enter New asset project CIP costs
- 4 - Enter current total reserves and annual reserve